Groundwater Management Zone Application

Remedial Design

Area 9/10

Southeast Rockford Groundwater Contamination Superfund Site

Rockford, Illinois

CERCLIS ID No. ILD981000417

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TABLE OF CONTENTS

TABLES

FIGURES

List of Acronyms

1,1,1-TCA	1,1,1 Trichloroethane
1,1,2-TCA	1,1,2 Trichloroethane
1,1-DCE	1,1-Dichloroethene
1,2-DCA	1,2-Dichloroethane
1,2-DCE	1,2-Dichloroethene
Agency	United States or Illinois Environmental Protection Agency
AOC	Administrative Order on Consent
Area	Area 9/10
AS	Air Sparge
BGS	Below Ground Surface
CDM	Camp Dresser McKee
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
City	City of Rockford
cm	Centimeter
COC	Constituent of Concern
FESOP	Federally Enforceable State Operating Permit
FFS	Focused Feasability Study
ft	Foot or Feet
GMZ	Groundwater Management Zone
HRC-X	Hydrogen Release Compound Extended Release Formula
HS	Hamilton Sundstrand
IAC	Illinois Administrative Code
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
JP-4	Jet Propellant 4
MC	Methylene Chloride
MCL	Maximum Containment Level
MEK	Methyl Ethyl Ketone or 2-Butanone
NEMA	National Electrical Manufacturers Association
OM&M	Operation, Maintenance, and Monitoring
OSA	Outside Container Storage Area
OU	Operable Unit
PCE	Tetrachloroethene
PDI	Pre-Design Investigation
ppm	Parts Per Million
PRG	Preliminary Remediation Goals
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
Sec	Second
SECOR	SECOR International Incorporated

List of Acronyms (Cont.)

SER	Southeast Rockford Groundwater Contamination Superfund Site
SIC	Standard Industrial Code
Site	Hamilton Sundstrand Plant #1
SVE	Soil Vapor Extraction
TACO	Tiered Approach to Corrective Action Objectives
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VC	Vinyl Chloride
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This document provides the necessary technical information for the establishment of a Groundwater Management Zone (GMZ) for the Remedial Design for Source Control for the Area 9/10 portion of the Southeast Rockford Groundwater Contamination Superfund Site (CERCLIS ID No. ILD981000417) located in the City of Rockford, Winnebago County, Illinois.

Hamilton Sundstrand Corporation (HS) entered into an Administrative Order on Consent (AOC) with the United States Environmental Protection Agency (USEPA or Agency) on January 13, 2003 for the completion of a Remedial Design (RD) for source control for Area 9/10. Establishing a GMZ for Area 9/10 was identified as part of the Source Control Record of Decision (ROD) activities for Operable Unit Three (OU-3) dated May 2002. Establishing a GMZ for the HS Plant #1 facility (the Site) within Area 9/10 is part of the Remedial Design activities.

1.1 PURPOSE OF THE GMZ APPLICATION

The purpose of this document is to provide the necessary information for USEPA approval (with concurrence from the Illinois Environmental Agency, to establish a three dimensional region containing groundwater being managed to mitigate impairment caused by a release of contaminants from the Site in general accordance with 35 Illinois Administrative Code (IAC) Part 620.250. The selected remedy at Area 9/10 of the Southeast Rockford Groundwater Contamination Site (SER) consists of air sparging and soil vapor extraction to address impacted groundwater (leachate) at the Hamilton Sundstrand Plant # 1 facility within Area 9/10.

For a GMZ to be established, the groundwater within the proposed GMZ must be managed to mitigate impairment caused by the release of contaminants from a site. Source removal actions will occur upon implementation of the remedial action. The RD is presently being prepared for Area 9/10 which provides for an air sparge and soil vapor extraction system as source control for groundwater (also referred to as leachate in the ROD) along with excavation and offsite disposal of source area soil at the Site.

This application contains the applicable information to determine the adequacy of the controls and the management of the GMZ at the site associated with the RD and future Remedial Action (RA) activities for the Site.

The remedy is described in the June 11, 2002 ROD for OU-3 Source Control. In addition to the selected remedy soil identified as source material at the Outside Container Storage Area (OSA) will be excavated and disposed offsite along with limited groundwater biological enhancement in this location.

A summary of the selected remediation alternatives, air sparging (AS) and soil vapor extraction (SVE), from the ROD is as follows:

Groundwater (leachate) Source Control Remedy:

- Alternative SCL-9/10E: Enhanced Air Sparging, which consisted of installing injection wells along the boundary of the GMZ and source area, was the selected remedy. Enhanced Air Sparging will involve the placement of air injection wells down gradient and in the more highly-contaminated areas. Air will be injected into the contaminated groundwater, causing the contaminants to volatilize into air pockets in the soil above the water table. The air sparging will have to be operated in conjunction with the Soil Vapor Extraction System SCS-9/10C. Vapors will be collected underground prior to their treatment with activated carbon.

- The leachate remedy also includes institutional controls on groundwater usage within the GMZ, installation of monitoring wells, and implementation of a groundwater (leachate) monitoring program. Groundwater (leachate) will be monitored at predetermined intervals for 30 years, per Resource Conservation and Recovery Act (RCRA) post-closure groundwater monitoring requirements. Monitoring will typically consist of collecting groundwater and analyzing for volatile organic compounds (VOCs) and, where appropriate, parameters that measure biological activity.

Soil Source Control Remedy:

- Alternative SCS-9/10C: Soil Vapor Extraction with vapor treatment using activated carbon was the selected remedy for soils at Area 9/10. Under this alternative, contaminated soils will be remediated in situ via a SVE system. The system will consist of installing a series of wells connected by an underground piping system. A blower will provide a source of negative pressure to extract vapors from the subsurface. Extraction wells will be screened in the vadose zone, where they will remove the contaminants from the unsaturated zone, as well as groundwater (leachate) contaminants that might diffuse from the surface of the water table. A pilot program will be conducted prior to the design of the SVE system to determine well spacing and in situ air permeability. Vapors collected from the SVE unit will be treated through the use of granular activated carbon. Granular activated carbon can be used to treat vapors at this area because of the lower expected concentrations of contaminants from soils.

- The vapor treatment scenario may have to be reevaluated based upon additional data collection from Area 9/10 and the results of the SVE pilot program.

The proposed number of AS wells and SVE wells for soil and groundwater/leachate remediation are 15 and six, respectively.

1.2 SITE DESCRIPTION AND BACKGROUND

Site Description

Area 9/10 (Area) is an industrial area located within the City of Rockford, Winnebago County, Illinois. The Area is bound by Eleventh Street on the east, Twenty-Third Avenue on the north, Harrison Avenue on the south, and Sixth Street on the west. HS was the only potentially responsible party identified by the Illinois Environmental Protection Agency (IEPA or Agency) for Area 9/10. The HS Plant #1 facility is located within Area 9/10. The Site and Area 9/10 locations are shown on Figure 1.1. The address of the facility is 2421 Eleventh Street. The Site is located in the southeast portion of the City of Rockford, Illinois, in Section 36 of Township 44 north, Range 1 east, of Rockford Township in Winnebago County. The HS Plant # 1 facility

within Area 9/10 is a generally rectangular area of approximately 13 acres. The Site is bound on the north by 23rd Avenue and former Mid-States Industrial (2401 Eleventh Street), on the south by the former Nylint/DRB property (2525 Eleventh Street) and the Rockford Products parking lot, to the west by 9th Street, and on the east by 11th Street. The property boundary for the HS Plant #1 facility is shown on Figure 1.2.

The SER site consists of three Operable Units, each with a corresponding ROD. Operable Unit One (Drinking Water Operable Unit) provided some area residents with a safe drinking water supply by connecting 283 homes to the city water supply. Operable Unit Two (Groundwater Operable Unit) addressed the area-wide groundwater contamination. An additional 264 homes were connected to the city water supply and a remedial investigation (RI) was conducted to characterize the nature and extent of the groundwater contamination and to provide information on source areas responsible for contamination. This operable unit identified four source areas (Areas 4, 7, 9/10, and 11). Operable Unit Three (Source Control Operable Unit) began as a State lead action to select remedies for each of the source areas. Based on the field investigation activities conducted by the IEPA at each of the areas, cleanup alternatives and selected remedies were presented in the May 2002 Source Control Remedies ROD issued by the USEPA and the IEPA.

The selected source control remedies for Area 9/10 are enhanced air sparging for leachate, soil vapor extraction with treatment of vapors by granular activated carbon for soil, and institutional controls. The term leachate is defined as water that passed through waste and picked up contaminants present in the waste.

HS Plant # 1 Facility Constituents of Concern

The HS Plant #1 facility was identified during the RI, performed by Camp Dresser McKee (CDM) for IEPA, and the Pre-Design Investigation (PDI), undertaken by HS, as containing groundwater impacted with VOCs above the Preliminary Remediation Goals (PRGs) identified in the ROD. The compounds detected at concentrations above the PRGs are referred to as constituents of concern (COCs). A network of 28 monitoring wells was established at the facility during the PDI. The soil boring and monitoring well locations are shown on Figure 1.3.

The soil COCs for Area 9/10 were identified as: 1,1- dichloroethene; methylene chloride (MC) (possible laboratory artifact); tetrachloroethene; 1,1,1 trichloroethane; 1,1,2 trichloroethane; and trichloroethene as agreed upon with USEPA and IEPA.

The RI also identified COCs in groundwater with concentrations above PRGs. The PRGs were based on 35 IAC Part 620 Groundwater Quality Class I groundwater, 35 IAC Part 742 Tiered Approach to Corrective Action Objectives (TACO), and USEPA maximum contaminant level (MCL) regulations. The groundwater COCs were identified as 1,1-dichloroethene (1,1-DCE); 1,2-dichloroethane (1,2-DCA); 1,2-dichloroethene (1,2-DCE); ethylbenzene; tetrachloroethene (PCE); 1,1,1-trichloroethane (1,1,1-TCA), 1,1,2-trichloroethane (1,1,2-TCA); trichloroethene (TCE); and vinyl chloride (VC), as agreed upon with USEPA and IEPA. The historical groundwater analytical results are shown on Figure 1.4.

The following sections describe the Site conditions considered in the selection and evaluation of the preferred remedy.

Extent of Soil Impact

The initial RI activities completed by CDM in Area 9/10 consisted of soil gas samples and limited soil sampling. A more comprehensive Pre-Design Investigation consisting of 38 soil borings across the Site, including adjacent properties and public right of ways, was completed by HS in 2003 and 2004 as shown on Figure 1.3. This effort identified three areas of soils which exceed the PRG (and TACO) remediation objectives (ROs). These areas were the OSA, the loading dock and former container storage area, and the western part of the South Alley. The ROD requires that source material be addressed in the remedial design.

Soil in the OSA may be considered source material. Concentrations of 1,1,1-TCA, 1,1-DCE, PCE, TCE, mercury, cadmium, and lead were detected in samples S1 through S8 above ROs. A number of the constituents were found in only relatively shallow soil (less than 8 feet bgs). PCE and cadmium were the only constituents detected above ROs in deeper soils. Metals were not specifically identified as COCs in the PRGs in the ROD. However, the OSA is also subject to RCRA regulations, and these metals are of concern from this perspective.

In the loading dock and former container storage areas, soil concentrations at four boring locations (S12, S13, S14, and SMW-15) exceeded ROs. The elevated concentrations were all in the shallow soil sample intervals at these locations. There were no RO exceedances in the deeper soil samples analyzed at these locations and the extent of impact is believed to be limited vertically. The soil impact at the SMW-15 location will be addressed as part of the remedial design. This area is presently covered with asphalt.

There was a soil PCE RO exceedance at the SMW-5 location (5 to 7 feet) southwest of the HS Plant # 1 building. There was, however, no PCE detected in the deep soil sample at this location. This area is not considered source material. This location is, however, adjacent to the treatment zone of the air sparge and soil vapor extraction system in the South Alley.

On July 24, 2000 three (#67, #69, and #70) of six underground storage tanks (USTs) that were discovered and removed from beneath the concrete floor within the building south of the loading dock were determined to be leaking. A release was reported to the Illinois Emergency Management Agency (IEMA) and Incident #20001409 was assigned to this event. The approximate location of the former USTs is shown on Figure 1.5. Soil samples were collected from the excavation which indicated that soil in the vicinity of the USTs was impacted. As these tanks were found during a construction project additional investigation to determine the vertical extent of the contamination was not able to be completed at that time. As there is no vertical delineation it is assumed that there is the potential that contaminants in soil at this location could impact groundwater. At the time of the UST removal approximately 50 cubic yards of impacted soil and backfill was removed and disposed offsite. This area was not accessible during the PDI activities.

There is also some hydrocarbon that has been observed on the water table in the eastern portion of the South Alley. A definitive source of the Jet Propellant 4 (JP-4) in this area has not been identified. There are a number of current and former USTs and piping in this area. There are three hydrocarbon recovery wells (RW-1, RW-2 and RW-3R) that were installed in the early 1990's. In 2004 the existing hydrocarbon recovery pumps were replaced with pneumatic skimmer pumps. The skimmer pump operation, maintenance, and monitoring is ongoing. The location of the South Alley recovery wells is also shown on Figure 1.3.

Source Material Soil and Groundwater Remediation

The Area 9/10 Remedial Design will consist primarily of: 1) soil excavation and associated activities in the OSA and 2) groundwater (leachate) remediation in the western portion of the South Alley via AS and SVE. Additional details regarding each of these planned efforts are provided below.

The VOC impacted soil at the OSA is a 65 foot by 50 foot area of approximately 3,300 square feet. HS plans to address these soils by excavation with offsite soil disposal. The impacted soil is primarily in the soil column from ground surface to six feet in depth. The total estimated in place quantity of impacted soil at the OSA is 550 cubic yards (850 tons). Figure 1.5 illustrates the lateral extent of soil impact above ROs at the OSA. A work plan for the excavation of the source material at the OSA was submitted to USEPA dated April 27, 2005 and was approved with modification on August 15, 2005 and is being incorporated into the Final Remedial Design. There will also likely be some limited soil excavation in the loading dock area in the vicinity of SMW-15. The groundwater and soil remediation areas are shown on Figure 1.6.

The air sparge and soil vapor extraction system will consist of 15 and six wells respectively. The AS and SVE wells will be operated in three banks of five AS wells and two SVE wells as an individual treatment cell. The treatment cells will be operated successively using a timing relay and air solenoid. Each of the banks will be pulsed for a period of four hours initially. The pulse time may be adjusted based on evaluation of the initial removal results. The approximate locations of the proposed wells are shown on Figure 1.7.

1.3 DOCUMENT OVERVIEW

The purpose of this document is to present the technical information for establishing a GMZ for the Site associated with Area 9/10 at the SER Site. Section 2.0 of this document is organized as follows:

- General Facility Information including location, type of facility, geology and hydrogeology, and release history is provided in Section 2.1;

- Release Information including a summary of the COCs, investigation activities, monitoring well network, groundwater monitoring dates and results is provided Section 2.2;
- GMZ region including horizontal and vertical extent is discussed in Section 2.3;
- Planned Remedial Actions are outlined in Section 2.4; and
- Point of Compliance wells are discussed in Section 2.5.

2.0 GMZ APPLICATION

This application Section contains the applicable information to determine the adequacy of the controls and the management of the GMZ at the site. The items presented below are thoroughly addressed and the current information associated with the proposed GMZ is provided.

Per 35 IAC Part 620.250 for a GMZ to be established, the groundwater within the proposed GMZ must be managed to mitigate impairment caused by the release of contaminants from a site. Source removal actions to prevent additional contamination from reaching groundwater must occur along with groundwater management. Groundwater management to mitigate impairment can use various combinations of technology. These include techniques such as groundwater removal and in-situ treatment. However, any action must improve the quality of groundwater caused by the release of contaminants from the site. GMZs can only be approved for areas where groundwater improvement is occurring.

This GMZ application section is presented in the IEPA requested format.

2.1 GENERAL FACILITY INFORMATION

1. General information regarding the facility:

   a. *Facility name;*
   The GMZ is being established associated with the Hamilton Sundstrand Plant #1 facility.

   b. *Facility address;*
   The facility address is 2421 11th Street, Rockford, Illinois 61125.

   c. *County in which facility is located;*
   The facility is located in Winnebago County.

   d. *Illinois EPA, Bureau of Land, and USEPA Identification Numbers;*

The IEPA identification number is 2010300074 and the USEPA identification number is ILD981000417.

e. *A general description of the type of industry, products manufactured, raw materials used, location and size of the facility, including SIC codes;*

Plant #1 is an aeronautic and aerospace manufacturing facility. The facility makes various component parts for jet aircraft. Metal, plastic, rubber and ceramic are the raw materials used in the components. The manufacturing building complex encompasses nearly the entire property of approximately 13 acres. The property is bounded by 9th Street to the west, 23rd Avenue and the former Mid-States Industrial facility (2401 Eleventh Street) to the north, 11th Street to the east, and the former Nylint/DRB property (2525 Eleventh Street), and Rockford Products Incorporated parking lot properties to the south. The standard industrial code (SIC) for the facility is 3724 (Aircraft Engines and Engine Parts).

f. *An identification of specific units (operating or closed) present at the facility for which the GMZ is proposed;*

The GMZ is proposed for the groundwater potential source areas identified at the facility which to date include the following:

- Outside Container Storage Area;
- 2000 LUST incident #20001409; and
- East South Alley – JP-4.

The GMZ would also apply to any additional areas of impact identified at the Site by future investigation activities.

g. *A USGS topographic or county map showing the location of the site and a more detailed scaled map of the facility with each waste management unit identified in Item 1.f above. Map scale must be specific and the location of the facility must be provided with respect to Township, Section, and Range;*

The location of the Site is shown on a United State Geological Survey (USGS) map as Figure 1.1. A more detailed map of the facility which identifies the areas listed in Section 1f above is provided as Figure 1.5. The facility is located in the

southeast portion of the City of Rockford, Illinois, in Section 36 of Township 44 north, Range 1 east, of Rockford Township in Winnebago County.

h. *A description of the geology and hydrogeology within the proposed GMZ and the surrounding area;*

The geological profile encountered at the HS Plant #1 Facility generally consists of surface pavement (asphalt, concrete pad, or floor slab) with a gravel fill subbase from ground surface to one to two feet below ground surface (bgs), underlain by silty clay to a depth of four to eight feet bgs, which is underlain by poorly to well graded sand (predominantly fine to medium sand) with some gravelly units to below the maximum depth of the borings at the site (140 feet). The sand and gravel has been reported to extend to a depth of 230 to 250 feet bgs in the vicinity of Area 9/10. This glacial outwash is identified as the Mackinaw Member of the Henry Formation. Bedrock encountered in borings/wells in the area is part of the Ordovician period Ancell Group (sandstone) of the Paleozoic era. Cross section alignments are shown on Figure 2.1 and east-west (A-A') and north south (B-B') cross sections are provided as Figures 2.2 and 2.3, respectively.

The vadose zone extends within the sand to a depth of approximately 30 feet bgs. Within the vadose zone sand there is a discontinuous one to four feet thick silt layer at approximately 18 to 23 feet bgs which was identified in the OSA. This layer was observed only in a limited area in the northwest portion of the Site. No other substantive or continuous fine grained layers or lenses were documented during the PDI investigation activities. At depth within the aquifer some coarser grained gravelly sand and sandy gravel units were observed.

The uppermost aquifer at the Site is the sand and gravel aquifer. The potentiometric surface level ranges between 30 to 35 feet bgs. This level varies somewhat seasonally and appears to mirror the general rainfall pattern of the area. Over the past several years the water level has typically been approximately 33 feet bgs. The aquifer is greater than 100 feet in thickness at the Site. The groundwater flow is to the west-southwest at a gradient of

approximately 0.0008 ft/ft (0.6 ft / 715 ft in March 2006) toward the Rock River. The hydraulic conductivity of the sand aquifer is 1.22 x 10^{-3} cm/sec and the aquifer porosity is assumed to be 0.25 (both from the CDM Focused Feasibility Study [FFS] 2000). Using this data, it is estimated that the average linear velocity (also referred to as groundwater seepage velocity) is likely between 4 and 10 feet per year. The March 2006 Groundwater Potentiometric Surface Map is presented as Figure 2.4.

i. Groundwater classification at the site;

The groundwater in the uppermost aquifer is Class I Groundwater.

j. A description of the circumstances under which the release from each waste management unit identified in Item 1.f above, to groundwater was identified.

Following is a list of the source areas and the circumstances under which a release to groundwater was identified. If a release to groundwater has not been confirmed through investigation then the area is identified as having the potential to impact groundwater.

The areas identified in Item 1f above were identified as follows:

- Outside Container Storage Area;
- 2000 LUST incident #20001409 (potential); and
- East South Alley – JP-4.

2.2 RELEASE INFORMATION

Area 9/10 is part of the larger site-wide Southeast Rockford Groundwater Contamination Superfund Site. This area extends over a large portion of southeast Rockford and has several areas which have been identified for source control activities. Based on the analytical data collected to date it appears there are upgradient facilities and operations that have impacted groundwater. Prior to discussion of the COCs identified at the Site it is very important to note is that impacted groundwater is and has been migrating onto the HS Plant #1 facility from the Southeast Rockford Groundwater Contamination Superfund Site. The following chemicals have been detected in the Area 9/10 upgradient wells:

Total Petroleum Hydrocarbon (TPH) - Jet Fuel (JP-4)
Tetrachloroethene
1,2-Dichloroethene (total)
Carbon tetrachloride
Acetone
Chloroform
1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
Trichloroethene

The following chemicals have been detected in upgradient wells at levels above the Class I groundwater remediation objectives:

Tetrachloroethene
Chloroform
Trichloroethene

2. Information Regarding the Release, including:
    a. *The chemical constituents released to the groundwater;*

    The following chemical constituents have been detected in groundwater at the HS Plant #1 facility within Area 9/10.

    TPH - Jet Fuel (JP4)
    Ethylbenzene
    1,2-Dichloroethane
    Toluene
    Tetrachloroethene
    Xylenes (total)
    1,2-Dichloroethene (total)
    Carbon tetrachloride
    Acetone
    Chloroform
    Benzene
    1,1,1-Trichloroethane

Chloroethane
Vinyl chloride
Methylene chloride
1,1-Dichloroethane
1,1-Dichloroethene
2-Butanone (MEK)
1,1,2-Trichloroethane
Trichloroethene

b. *Identification of the chemical constituents detected in groundwater that are above the applicable standard in 35 Ill. Adm. Code Part 620;*

The following chemical constituents have been detected in groundwater at concentrations above the Class I groundwater standards:

1,2-Dichloroethane
Tetrachloroethene
Chloroform
Benzene
1,1,1-Trichloroethane
Vinyl chloride
1,1-Dichloroethane
1,1-Dichloroethene
1,1,2-Trichloroethane
Trichloroethene

c. *A description of how the site has been investigated to determine the source or sources of the release;*

The initial Superfund field work was completed by the IEPA contractor, CDM of Chicago, Illinois, in the form of a RI at the Site over the period of 1993 to 2000. HS performed a more comprehensive Site-wide PDI consisting of 38 borings and installation of a monitoring well network of 21 wells in 2003 and 2004. The groundwater monitoring network established consists of 28 wells (SMW-1 through SMW-22, MW127, MW201, MW202, MW203, MW3-FGA, and MW7-FGA).

d. *A description of how groundwater has been monitored to determine the rate and extent of the release;*

Groundwater monitoring activities from wells at and around the Site have been conducted over the period of 1996 to 2004. Details of the activities completed have been summarized in the following documents:

- Final Remedial Investigation Report for the Southeast Rockford Source Control Operable Unit dated July 25, 2000 prepared by CDM for IEPA:
- Semi-Annual and Annual groundwater reports contracted by the City of Rockford 1999-2002 which were prepared by Nationwide Environmental Services, Inc. of Denver, Colorado; and
- Pre-Design Investigation Report dated April 28, 2006 prepared by SECOR International Incorporated (SECOR) for HS.

e. *A description of the groundwater monitoring network and groundwater sampling protocols in place at the facility;*

The RI groundwater sampling was completed by CDM using a Fultz pump. The City of Rockford groundwater survey sampling method was not documented in the data summary reports.

The Site groundwater monitoring network at the end of the PDI activities consisted of 28 wells. The groundwater sampling protocols used during the PDI activities were identified in the Field Sampling Plan dated March 31, 2003 and consisted of purging and hand bailing the wells with the exception of the four wells monitored by the City of Rockford. These wells were sampled using the flow through cell purging equipment of the contractor (Eagan and Anderson) to the City of Rockford.

The GMZ monitoring network will consist of eleven wells. These will include seven existing wells and four wells to be installed. Existing wells SMW-1, SMW-2, SMW-19, MW203, and MW7-FGA will be on the upgradient side of the GMZ and existing wells SMW-20 and SMW-21 and the nine new wells (GMZ-1 through

GMZ-4) will be on the downgradient side. These new proposed wells will be installed as part of the Remedial Action activities. The locations of the existing and proposed GMZ monitoring wells are shown on Figure 2.5. Each of these wells has or will have a 15 feet long screen and set from approximately 30 feet to 45 feet bgs.

HS may use the purge and bail method of sampling as described in the Field Sampling Plan dated March 31, 2003. The actual protocol to be used will be contained in the Operation, Maintenance, and Monitoring (OM&M) Plan which is being developed as part of the Final Remedial Design.

f. The schedule for monitoring of the groundwater; and

The schedule for groundwater monitoring will consist of the following:

The actual schedule for the sampling of the GMZ monitoring well network will be contained in the OM&M Plan which is being developed as part of the Final Remedial Design. Monitoring frequency will likely be based in part on the system remediation performance and the actual analytical results obtained from the monitoring effort. Outlined below are some of the considerations that will be incorporated into the decision making on when and how frequently groundwater monitoring will be performed.

- An initial or baseline round of groundwater samples may be collected after construction of the RA infrastructure but prior to implementation of the RA activities.
- Periodic evaluation of groundwater conditions based on the results of the system operation as outlined in the OM&M Plan to be submitted as part of the Final Design (100% Design) documents. This period will likely be at a minimum annually for the initial remediation operation (estimated to be two years).
- The interval period of monitoring after the initial remediation may increase after the remediation system reaches consistent operating performance.

g. A summary of the results of groundwater monitoring associated with the release at each waste management unit identified in Item 1.f above. The summary of groundwater results should provide the following information:

i. Dates of sampling;

A groundwater sample was collected from the MW127 well on October 11, 1993. Groundwater samples were collected from some or all of the IEPA/City wells (MW201, MW202, and MW203) by CDM as part of the Source Control RI in July 1996.

Samples were also collected from some or all of the IEPA/City wells by the contractor to the City of Rockford, Nationwide Environmental Services of Denver, Colorado, on the following dates:

- October 11, 1993;
- July 1996;
- June 1, 1999;
- October 27, 1999;
- February 15-16, 2000;
- April 18, 2000;
- July 20, 2000;
- November 16, 2000;
- April 13, 2001;
- October 2001;
- October 2002; and
- December 2003.

As part of the PDI two rounds of groundwater samples were collected by SECOR on behalf of HS from the Site monitoring well network in April and November 2004. The historical groundwater analytical data for the site including the dates of sampling are provided in Table 2.1.

ii. Identification of monitoring wells;

Following is a list of the monitoring wells grouped by naming convention that have been used in the evaluation of groundwater at the Site:

- SMW-1 through SMW-22;
- MW3-FGA and MW7-FGA; and
- MW127, MW201, MW202, and MW203.

iii. Chemical constituents analyzed and concentrations in parts per million (ppm) for each monitoring well identified in Item 2.g.ii above;

The chemical constituents analyzed and the concentrations in ppm for each monitoring well identified in Item 2.g.ii are provided in Table 2.1.

2.3 GMZ HORIZONTAL AND VERTICAL EXTENT

3. Scaled drawings identifying the horizontal and vertical boundaries of the proposed GMZ.
The GMZ is actually composed of two areas, GMZ 1 and GMZ 2, separated by the Illinois Central Railroad property. The overall horizontal extent of the proposed GMZ is approximately 1235 feet east to west and 530 feet north to south on the western portion of the Site and 350 feet north to south on the eastern portion of the Site. The GMZ extends to a depth of approximately 45 feet bgs which is 685 feet above mean sea level. The average depth to water over the past two years has been approximately 33 feet. The horizontal and vertical extent of the proposed GMZ is shown on Figure 2.2, 2.3, and 2.5.

2.4 PLANNED REMEDIAL ACTION

- Information regarding the approved remedial action including:

i. A description of the approved remedial action;
HS is in the process of developing the Remedial Design for SER Area 9/10 incorporating the selected remedies in the Source Control ROD which was

the use of AS and SVE technologies. Once the final design is approved it is anticipated that the design will be implemented as a RA.

The details of the RD were submitted to USEPA (and IEPA) in the form of the Preliminary Design (30% Design) on July 29, 2006.

ii. *A description of how the approved remedial action has impacted the release;*
The development of the Source Control OU-3 ROD final remedial design is in progress. It is anticipated that upon approval the RD will be implemented as a RA and will favorably address the source control issue.

iii. *A description of how the approved remedial action is operated and maintained; A projected schedule for completion of remediation;*
The general operation of the remedial action will be as follows:
AS and SVE systems are planned to be operated in banks of multiple sparge points (5) and SVE wells (2) on a timing system that will pulse each of the three banks periodically.

The details of how the system will be operated and maintained will be contained in the OM&M Plan which is being developed as part of the RD. Presently there is not a projected schedule for the remediation. Completion of remediation will be performance based. It must also be noted that impacted groundwater is migrating onto the Site from other areas within the Southeast Rockford Groundwater Superfund Site outside of Area 9/10.

iv. *An identification of any and all permits obtained from the Illinois EPA for the remedial action;*
The remedial action has not yet been implemented and no permits have been obtained for this purpose.

It is important to note that, as identified at Section 121(e) of CERCLA, and in the NCP at 40 CFR 300.400(e), no federal, state, or local permits are required for any remedial actions conducted entirely on-site. However, on-

site emissions and/or discharges need to attain a level of treatment and management meeting all substantive technical requirements that may be required if a permit were necessary. Emissions or discharges that leave the site or response actions that are conducted off-site are subject to applicable permitting requirements.

Several activities that are anticipated as part of the RA that will require meeting technical requirements are the following:

- Return of condensate water to the aquifer through an air sparge point – subject to Class V injection permit requirements
- Placement of HRC-X into the wells in the OSA - subject to Class V injection permit requirements
- SVE air emissions – subject to air permit treatment requirements if over 8 lbs per hour total volatile emissions (also subject to the facility FESOP requirements)

v. *A description of how groundwater at the facility will be monitored following the future completion of the remedy to ensure that the groundwater quality standards have been attained;*

Upon completion of the remedy it will be decided in conjunction with USEPA when, how often, or if groundwater monitoring is necessary.

vi. *A discussion addressing the adequacy of the controls and management of the proposed GMZ at the site; and*

The groundwater within the GMZ will be actively managed and monitored in accordance with the processes and procedures outlined in the OM&M Plan which will be submitted as part of the Final Design (100%) Remedial Design documents. This will entail routine operation and maintenance activities, groundwater monitoring, and periodic reporting of the remediation performance and GMZ groundwater analytical results.

vii. Course of action for future activities and/or request for modification in regards to the proposed GMZ at the site.

It is envisioned that if modifications to the GMZ are necessary that a written plan would be prepared and submitted to USEPA providing the rationale and justification. This may be done either as a stand alone document or as part of a periodic GMZ reevaluation.

2.5 POINT OF COMPLIANCE

In any GMZ, the goal is remediation of the groundwater to the level of the standards applicable to that class of groundwater. This goal does not mean all groundwater within the GMZ must be returned to the groundwater standard. On the other hand, groundwater within the GMZ that is beyond the point of compliance as established under 35 Ill. Adm. Code Part 620.505(a) is to be remediated to the level applicable to that groundwater class. However, groundwater contamination within the three-dimensional zone between the compliance point wells and the waste management unit could still exceed the applicable standards at completion of the corrective action. If this is the case, post-remediation monitoring may be necessary.

The eleven wells (SMW-20, SMW-21, and proposed wells GMZ-1 through GMZ-4) will be the GMZ monitoring well network. The point of compliance wells will be GMZ-1, GMZ-2, GMZ-3, SMW-20, SMWU-21, and GMZ-4 for the Source Control ROD. The locations of these wells are shown on Figure 2.5.

TABLES

TABLE 2.1
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

SECOR

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location / Sample Date / Units RES	Q	GW-SMW-1 4/26/2004 ug/L		GW-SMW-1 11/16/2004 ug/L		GW-SMW-2 4/26/2004 ug/L		GW-SMW-2 11/16/2004 ug/L		GW-SMW-3 4/26/2004 ug/L		GW-SMW-3 11/16/2004 ug/L		GW-SMW-4 4/26/2004 ug/L		GW-SMW-4 11/16/2004 ug/L		GW-SMW-5 4/26/2004 ug/L		GW-SMW-5 11/16/2004 ug/L		GW-SMW-6 4/27/2004 ug/L		GW-SMW-6 11/17/2004 ug/L		GW-SMW-7 4/27/2004 ug/L		GW-SMW-7 11/16/2004 ug/L		GW-SMW-8 4/26/2004 ug/L		GW-SMW-8 11/16/2004 ug/L		GW-SMW-9 4/27/2004 ug/L	
1,1,1-Trichloroethane	200			*6.1*		*7.7*		1	U	1	U	1	U	1	U	*12*		*11*		*15*		*13*		*1,100*		*640*		*10,000*		*9,900*		*6.3*		*320*		*52*	
1,1,2,2-Tetrachloroethane	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U	1	U
1,1,2-Trichloroethane	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	*14*	*Ja*	1	U	1	U	1	U
1,1-Dichloroethane	700			1	U	1	U	1	U	1	U	1	U	*0.8*	*Ja*	*6.7*		*3.5*		*11*		*7.6*		*16,000*		*22,000*		*340*		*220*		*1.9*		*63*		*69*	
1,1-Dichloroethene	7			1	U	1	U	1	U	1	U	1	U	1	U	1	U	*0.7*	*Ja*	*2.2*		*2.7*		*470*		*550*		*310*		*230*		1	U	*2.5*		*3.8*	
1,2-Dichloroethane	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U	1	U
1,2-Dichloroethene (total)	NL			1	U	1	U	*4.4*		1	U	1	U	1	U	*21*		*20*		*38*		*26*		*16,000*		*23,000*		*1,700*		*1,400*		*38*		*88*		*55*	
1,2-Dichloropropane	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U	1	U
2-Butanone (MEK)	NL			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U	5	U
2-Hexanone	NL			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U	5	U
Acetone	700			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U	*4.1*	*J*
Benzene	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U	1	U
Bromodichloromethane	0.2			**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Bromoform	1			1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U*	1	U
Bromomethane	9.8			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U	1	U
Carbon disulfide	700			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500	U	500	U	100	U	5	U	5	U	5	U
Carbon tetrachloride	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	1	U	1	U	1	U
Chlorobenzene	100			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U	1	U
Chloroethane	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*0.98*	*J*	*3*		100	U	*300*		100	U	20	U	1	U	1	U	1	U
Chloroform	0.2			**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Chloromethane	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U	100	U	100	U	100	U	20	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	70																																				
cis-1,3-Dichloropropene	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U	1	U
Dibromochloromethane	140			1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U*	1	U
Ethylbenzene	700			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	*58*	*Ja*	*170*		*150*		1	U	1	U	1	U
Methylene chloride	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**100**	**U**	**100**	**U**	**100**	**U**	**20**	**U**	*2*		1	U	*1.1*	
Styrene	100			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U	1	U
Tetrachloroethene	5			*2.4*	*H*	*3.6*		*1.3*		*0.71*	*Ja*	1	U	*0.98*	*Ja*	*71*		*77*		*34*		*14*		**100**	**U**	**100**	**U**	*69*	*J*	*88*		*12*		*260*		*3.3*	
Toluene	1,000			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*310*		*290*		100	U	*11*	*Ja*	1	U	1	U	1	U
trans-1,2-Dichloroethene	100																																				
trans-1,3-Dichloropropene	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100	U	100	U	20	U	1	U	1	U	1	U
Trichloroethene	5			1	U	1	U	1	U	1	U	1	U	1	U	*6*		*4.3*		*30*		*16*		**100**	**U**	**100**	**U**	*53*	*JM*	*32*		*6.8*		*32*		*2.4*	
Vinyl chloride	2			1	U	1	U	1	U	1	U	1	U	1	U	1	U	*7.4*		*31*		*14*		*1,800*		*2,100*		*46*	*Ja*	*14*	*Ja*	1	U	*1*		1	U
Xylenes (total)	10,000			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*250*		*390*		*1,000*		*920*		1	U	1	U	1	U
TPH - Jet Fuel (JP4)				120	U	120	U	120	U	120	U	130	Ua	120	U	130	U	130	U	120	Ua	140	U	880		1600		1100		1700		120	U	120	U	130	U

See separate analytical notes page for table explanation.

TABLE 2.1
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location / Sample Date / Units RES	Q	GW-SMW-9 11/17/2004 ug/L		GW-SMW-10 4/27/2004 ug/L		GW-SMW-10 11/17/2004 ug/L		GW-SMW-11R 4/26/2004 ug/L		GW-SMW-11R 11/16/2004 ug/L		GW-SMW-12 4/26/2004 ug/L		GWD-SMW-12 11/16/2004 ug/L		GW-SMW-13 4/26/2004 ug/L		GW-SMW-13 11/17/2004 ug/L		GW-SMW-14 4/26/2004 ug/L		GW-SMW-14 11/17/2004 ug/L		GW-SMW-15 4/26/2004 ug/L		GW-SMW-15 11/17/2004 ug/L		GW-SMW-16A 4/27/2004 ug/L		GW-SMW-16A 11/16/2004 ug/L	
1,1,1-Trichloroethane	200			*24*		*19*		*16*		*1.4*		*5.1*		*8*		*10*		*1.7*		*3.2*		*9.1*		*10*		*69*		*92*		*14*		*12*	
1,1,2,2-Tetrachloroethane	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	700			*6.7*		*5.9*		*4.8*		*2.1*		*1.3*		*3.5*		*4.3*		1	U	1	U	*2.7*		*2.3*		*15*		*18*		1	U	1	U
1,1-Dichloroethene	7			*3.5*		*2.5*		*2.2*		1	U	1	U	*0.95*	*J*	*1*		1	U	1	U	*1.6*		*1.3*		*1.3*		*1.4*		1	U	1	U
1,2-Dichloroethane	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethene (total)	NL			*2.9*		*1.6*	*a*	*1.3*	*a*	*2.1*		*1.2*	*a*	*2.8*		*3.8*		1	U	1	U	*1.6*	*a*	*1.1*	*a*	*1.3*	*a*	*2.1*		1	U	1	U
1,2-Dichloropropane	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone (MEK)	NL			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	NL			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	700			5	U	5	U	5	U	*2.1*	*J*	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	0.2			**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Bromoform	1			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	1	U*
Bromomethane	9.8			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	700			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5			1	U	1	U	1	U	1	U*	1	U	1	U	1	U	*1*		*1.9*		1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	100			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	0.2			**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	*0.7*	*Ja*	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**
Chloromethane	NL			1	U	1	U	1	U	1	U*	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	70																																
cis-1,3-Dichloropropene	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	140			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*	1	U	1	U*	1	U	1	U	1	U	1	U	1	U*
Ethylbenzene	700			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	100			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5			*7.6*		*5.9*		*4.7*		*1.3*		*1.6*		*4.6*		*8.3*		*15*		*24*		*5.8*		*7.5*		*53*		*56*		*4.5*		*4.2*	
Toluene	1,000			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	100																																
trans-1,3-Dichloropropene	NL			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	5			*3.7*		*3.4*		*2.6*		*1.8*		*1.1*		*2.9*		*3.4*		*14*		*20*		*4.2*		*3.1*		*7.4*		*5.3*		1	U	*0.64*	*Ja*
Vinyl chloride	2			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	*0.81*	*Ja*	1	U	1	U	1	U
Xylenes (total)	10,000			1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
TPH - Jet Fuel (JP4)				120	U	130	U	120	U	120	U	120	U	120	U	120	U	120	U	130	U	120	U	130	U	120	Ua	120	Ua	130	U	120	U

See separate analytical notes page for table explanation.

TABLE 2.1
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location / Sample Date / Units RES	Q	GW-SMW-17 4/27/2004 ug/L		GW-SMW-17 11/16/2004 ug/L		GW-SMW-18 4/27/2004 ug/L		GW-SMW-18 11/16/2004 ug/L		GW-SMW-19 11/17/2004 ug/L		GW-SMW-20 11/16/2004 ug/L		GW-SMW-21 11/16/2004 ug/L		GW-SMW-22 11/16/2004 ug/L		GW-MW-3FGA 4/26/2004 ug/L		GW-MW-3FGA 11/17/2004 ug/L		GW-MW-7FGA 4/26/2004 ug/L		GW-MW-7FGA 11/16/2004 ug/L		GW-MW127 10/11/1993 ug/L		GW-MW127 4/27/2004 ug/L		GW-MW127 11/16/2004 ug/L		GW-MW201^ 7/19/1996 ug/L		GW-MW201 2/16/2000 ug/L	
1,1,1-Trichloroethane	200			1	U	1	U	1	U	5	U	1	U	***6,900***		***34,000***		***110***		1	U	1	U	1	U	***1.8***				5	U	1	U	***12,000***		***4.5***	***J***
1,1,2,2-Tetrachloroethane	NL			1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
1,1,2-Trichloroethane	5			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	***11***		1	U	1	U	1	U	1	U			5	U	1	U				
1,1-Dichloroethane	700			***5.3***		***3.6***		***15***		***25***		1	U	***30,000***		***770***		***340***		1	U	1	U	1	U	1	U	***15.0***		***55***		***9.2***		***690.0***		***48.0***	
1,1-Dichloroethene	7			1	U	1	U	***3.8***		***9.4***		1	U	***750***		***1,700***		***8.7***		1	U	1	U	1	U	1	U			5	U	1	U	***850.0***		***1.1***	***J***
1,2-Dichloroethane	5			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	***6.1***		1	U	1	U	1	U	1	U			5	U	***7.7***					
1,2-Dichloroethene (total)	NL			1	U	1	U	***9.7***		***49***		***8.7***		***28,000***		***1,800***		***250***		1	U	1	U	1	U	1	U			5	U	1	U				
1,2-Dichloropropane	5			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
2-Butanone (MEK)	NL			5	U	5	U	5	U	25	U	5	U	1,000	U	1,000	U	5	U	5	U	5	U	5	U	5	U			25	U	5	U				
2-Hexanone	NL			5	U	5	U	5	U	25	U	5	U	1,000	U	1,000	U	5	U	5	U	5	U	5	U	5	U			25	U	5	U				
4-Methyl-2-pentanone (MIBK)	NL			5	U	5	U	5	U	25	U	5	U	1,000	U	1,000	U	5	U	5	U	5	U	5	U	5	U			25	U	5	U				
Acetone	700			5	U	5	U	***9.8***		25	U	5	U	**1,000**	**U**	**1,000**	**U**	5	U	5	U	5	U	5	U	5	U			25	U	5	U				
Benzene	5			***11***		***8.4***		***310***		***220***		1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U	***92.0***		***98***		***30***					
Bromodichloromethane	0.2			**1**	**U**	**1**	**U**	**1**	**U**	**5**	**U**	**1**	**U**	**200**	**U**	**200**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**			**5**	**U**	**1**	**U**				
Bromoform	1			1	U	1	U	1	U	**5**	**U**	1	U*	**200**	**U**	**200**	**U**	1	U	1	U	1	U*	1	U	1	U			**5**	**U**	1	U*				
Bromomethane	9.8			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Carbon disulfide	700			5	U	5	U	5	U	25	U	5	U	**1,000**	**U**	**1,000**	**U**	5	U	5	U	5	U	5	U	5	U			25	U	5	U				
Carbon tetrachloride	5			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Chlorobenzene	100			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Chloroethane	NL			1	U	1	U	***180***		***190***		1	U	***590***		200	U	***4***		1	U	1	U	1	U	1	U	***59.0***		***1,500***		***900***					
Chloroform	0.2			**1**	**U**	**1**	**U**	**1**	**U**	**5**	**U**	**1**	**U**	**200**	**U**	**200**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**	**1**	**U**			**5**	**U**	**1**	**U**				
Chloromethane	NL			1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
cis-1,2-Dichloroethene	70																																	***4,500***		***85.0***	
cis-1,3-Dichloropropene	NL			1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Dibromochloromethane	140			1	U	1	U	1	U	5	U	1	U*	**200**	**U**	**200**	**U**	1	U	1	U	1	U*	1	U	1	U			5	U	1	U*				
Ethylbenzene	700			1	U	1	U	***250***		***290***		1	U	200	U	***150***	***Ja***	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Methylene chloride	5			1	U	1	U	***1.5***		5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Styrene	100			1	U	1	U	1	U	5	U	1	U	**200**	**U**	**200**	**U**	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Tetrachloroethene	5			1	U	1	U	1	U	5	U	***2.2***		**200**	**U**	**200**	**U**	***290***		***1.9***		***1.7***		1	U	***3.3***				***9.4***		1	U	***68.0***	***J***		
Toluene	1,000			1	U	1	U	***450***		***160***		1	U	***530***		200	U	1	U	1	U	1	U	1	U	1	U			5	U	1	U	***94.0***	***J***		
trans-1,2-Dichloroethene	100																																				
trans-1,3-Dichloropropene	NL			1	U	1	U	1	U	5	U	1	U	200	U	200	U	1	U	1	U	1	U	1	U	1	U			5	U	1	U				
Trichloroethene	5			***1.1***		1	U	1	U	5	U	***57***		**200**	**U**	***200***	***Ja***	***120***		***6.7***		***3.9***		1	U	***2.5***				5	U	1	U			***8.3***	
Vinyl chloride	2			1	U	1	U	***2.7***		**5**	**U**	1	U	***3,500***		**200**	**U**	***3.2***		1	U	1	U	1	U	1	U			**5**	**U**	1	U				
Xylenes (total)	10,000			***0.88***	***Ja***	1	U	***880***		***750***		1	U	***750***		***2,100***		***6.9***		1	U	1	U	1	U	1	U			5	U	***2.1***		***76.0***	***J***		
TPH - Jet Fuel (JP4)				130	Ua	120	Ua	7200		3600		160	U	2600		1300		120	Ua	140	U	160	U	170		1200	U			120	Ua	120	U				

See separate analytical notes page for table explanation.

TABLE 2.1
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

SECOR

Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location / Sample Date / Units RES	Q	GW-MW201 4/18/2000 ug/L		GW-MW201 7/25/2000 ug/L		GW-MW201 11/16/2000 ug/L		GW-MW201 4/13/2001 ug/L		GW-MW201 10/1/2001 ug/L		GW-MW201 10/1/2002 ug/L		GW-MW201 12/1/2003 ug/L		GW-MW201 4/27/2004 ug/L		GW-MW201 11/18/2004 ug/L		GW-MW202 7/1/1996 ug/L		GW-MW202 6/1/1999 ug/L		GW-MW202 10/27/1999 ug/L		GW-MW202 2/16/2000 ug/L		GW-MW202 4/18/2000 ug/L		GW-MW202 7/25/2000 ug/L		GW-MW202 11/16/2000 ug/L		GW-MW202 4/13/2001 ug/L		GW-MW202 10/1/2001 ug/L		GW-MW202 10/1/2002 ug/L	
1,1,1-Trichloroethane	200			*4.9*	*J*	*110.0*		*39.0*		*12.0*		*55.0*		*970.0*				*86*		*47*		*5.0*	*J*	*2.0*		*2.2*		*0.77*	*J*	*0.65*	*J*	*0.72*	*J*	*0.11*	*J*	*0.078*	*J*	*0.063*	*J*		
1,1,2,2-Tetrachloroethane	NL																	50	U	10	U																				
1,1,2-Trichloroethane	5																	**50**	**U**	**10**	**U**																				
1,1-Dichloroethane	700			*120.0*		*330.0*		*340.0*		*43.0*		*150.0*		*7,100*		*6,480*		*8,000*		*1,700*																				
1,1-Dichloroethene	7			*1.9*	*J*	*6.8*	*J*	*5.2*	*J*	*1.6*	*J*	*3.6*	*J*	*480.0*	*J*			**50**	**U**	**10**	**U**					*0.18*	*J*														
1,2-Dichloroethane	5																	**50**	**U**	**10**	**U**																				
1,2-Dichloroethene (total)	NL																	*51*		*30*																				
1,2-Dichloropropane	5																	**50**	**U**	**10**	**U**																				
2-Butanone (MEK)	NL																	250	U	50	U																				
2-Hexanone	NL																	250	U	50	U																				
4-Methyl-2-pentanone (MIBK)	NL																	250	U	50	U																				
Acetone	700																	250	U	50	U																				
Benzene	5																	**50**	**U**	**10**	**U**																				
Bromodichloromethane	0.2																	**50**	**U**	**10**	**U**																				
Bromoform	1																	**50**	**U**	**10**	**U**																				
Bromomethane	9.8																	**50**	**U**	**10**	**U**																				
Carbon disulfide	700																	250	U	50	U																				
Carbon tetrachloride	5																	**50**	**U**	**10**	**U**																				
Chlorobenzene	100																	50	U	10	U																				
Chloroethane	NL																	50	U	*30*																				
Chloroform	0.2																	**50**	**U**	**10**	**U**							*0.25*	*J*	*0.48*	*J*								
Chloromethane	NL																	50	U	10	U																				
cis-1,2-Dichloroethene	70			*87.0*		*220.0*		*180.0*		*60.0*		*120.0*		*2,200*										*0.81*	*J*	*0.68*	*J*														
cis-1,3-Dichloropropene	NL																	50	U	10	U																				
Dibromochloromethane	140																	50	U	10	U																				
Ethylbenzene	700																	50	U	10	U																				
Methylene chloride	5																	**50**	**U**	**10**	**U**																			*0.5*	*J*
Styrene	100																	50	U	10	U																				
Tetrachloroethene	5																	**50**	**U**	**10**	**U**	*12.0*		*4.6*		*5.0*		*3.6*		*3.1*		*3.5*		*14.0*		*13.0*		*12.0*		*12.0*	
Toluene	1,000																	50	U	10	U																				
trans-1,2-Dichloroethene	100			*0.78*	*J*					*0.64*	*J*																														
trans-1,3-Dichloropropene	NL																	50	U	10	U																				
Trichloroethene	5			*15.0*		*4.5*	*J*	*4.9*	*J*	*19.0*		*25.0*						*26*	*J*	*23*				*2.1*		*2.1*		*0.5*	*J*	*0.55*	*J*	*0.75*	*J*	*0.19*	*J*	*0.11*	*J*				
Vinyl chloride	2																	*44*	*J*	*8.1*	*Ja*																				
Xylenes (total)	10,000																	50	U	10	U																				
TPH - Jet Fuel (JP4)																		150	Ua	130	U																				

See separate analytical notes page for table explanation.

TABLE 2.1
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals (ug/L)	Location / Sample Date / Units RES	Q	GW-MW202 12/1/2003 ug/L		GW-MW202 4/27/2004 ug/L		GW-MW202 11/18/2004 ug/L		GW-MW203 7/1/1996 ug/L		GW-MW203 6/1/1999 ug/L		GW-MW203 10/27/1999 ug/L		GW-MW203 2/15/2000 ug/L		GW-MW203 4/18/2000 ug/L		GW-MW203 7/25/2000 ug/L		GW-MW203 11/16/2000 ug/L		GW-MW203 4/13/2001 ug/L		GW-MW203 10/1/2001 ug/L		GW-MW203 10/1/2002 ug/L		GW-MW203 12/1/2003 ug/L		GW-MW203 4/27/2004 ug/L		GW-MW203 11/18/2004 ug/L	
1,1,1-Trichloroethane	200					*0.37*	*Ja*	1	U	*2.0*	*J*	*0.92*	*J*	*2.7*		*0.26*	*J*	*0.14*	*J*	*0.2*	*J*	*0.66*	*J*	*0.81*	*J*	*0.76*	*J*					1	U	1	U
1,1,2,2-Tetrachloroethane	NL					1	U	1	U																							1	U	1	U
1,1,2-Trichloroethane	5					1	U	1	U																							1	U	1	U
1,1-Dichloroethane	700					1	U	1	U					*0.28*	*J*											*0.19*	*J*					1	U	*1.6*	
1,1-Dichloroethene	7			*0.542*	*J*	1	U	1	U					*0.42*	*J*																	1	U	1	U
1,2-Dichloroethane	5					1	U	1	U																							1	U	1	U
1,2-Dichloroethene (total)	NL					1	U	1	U																							1	U	1	U
1,2-Dichloropropane	5					1	U	1	U																							1	U	1	U
2-Butanone (MEK)	NL					5	U	5	U																							5	U	5	U
2-Hexanone	NL					5	U	5	U																							5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL					5	U	5	U																							5	U	5	U
Acetone	700					5	U	5	U																							5	U	5	U
Benzene	5					1	U	1	U																							1	U	1	U
Bromodichloromethane	0.2					**1**	**U**	**1**	**U**																							**1**	**U**	**1**	**U**
Bromoform	1					1	U	1	U																							1	U	1	U
Bromomethane	9.8					1	U	1	U																							1	U	1	U
Carbon disulfide	700					5	U	5	U																							5	U	5	U
Carbon tetrachloride	5					1	U	1	U																							1	U	1	U
Chlorobenzene	100					1	U	1	U																							1	U	1	U
Chloroethane	NL					1	U	1	U																							1	U	1	U
Chloroform	0.2					**1**	**U**	**1**	**U**													*0.82*	*J*	*1.8*		*4.3*		*1.0*				**1**	**U**	**1**	**U**
Chloromethane	NL					1	U	1	U																							1	U	1	U
cis-1,2-Dichloroethene	70											*0.67*	*J*	*1.5*		*0.13*	*J*	*0.074*	*J*																
cis-1,3-Dichloropropene	NL					1	U	1	U																							1	U	1	U
Dibromochloromethane	140					1	U	1	U																							1	U	1	U
Ethylbenzene	700					1	U	1	U																							1	U	1	U
Methylene chloride	5					1	U	1	U																							1	U	1	U
Styrene	100					1	U	1	U																							1	U	1	U
Tetrachloroethene	5			*2.78*		*2*		*2.1*		*7.0*	*J*	*14.0*		*15.0*		*8.6*		*11.0*		*13.0*		*3.5*		*3.2*		*3.1*		*3.0*		*8.43*		*7.6*		*8.9*	
Toluene	1,000					1	U	1	U																							1	U	1	U
trans-1,2-Dichloroethene	100																																		
trans-1,3-Dichloropropene	NL					1	U	1	U																							1	U	1	U
Trichloroethene	5			*1.11*		*0.64*	*J*	1	U			*1.2*		*2.6*		*0.24*	*J*	*0.17*	*J*	*0.21*	*J*	*0.81*	*J*	*0.76*	*J*	*0.84*	*J*	*0.7*	*J*			1	U	1	U
Vinyl chloride	2					1	U	1	U																							1	U	1	U
Xylenes (total)	10,000					1	U	1	U																							1	U	1	U
TPH - Jet Fuel (JP4)						140	U	130	U																							130	U	120	U

See separate analytical notes page for table explanation.

TABLE 2.1
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

ENDNOTES

Analytical Table Notes:

General Abbreviations and Symbols
NL - Not Listed
MSA - Metropolitan Statistical Area
Res - Result or Reporting Limit
RO - Remediation Objective
Q - Qualifier
** - Less than or equal to specified RO

Data Presentation

0.005	U	Not detected at specified Reporting Limit
0.005	**U**	(Bold) Detection limit above lowest specified RO
0.005		(Bold, Italic) Indicates compound detected but below lowest specified RO
0.005		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

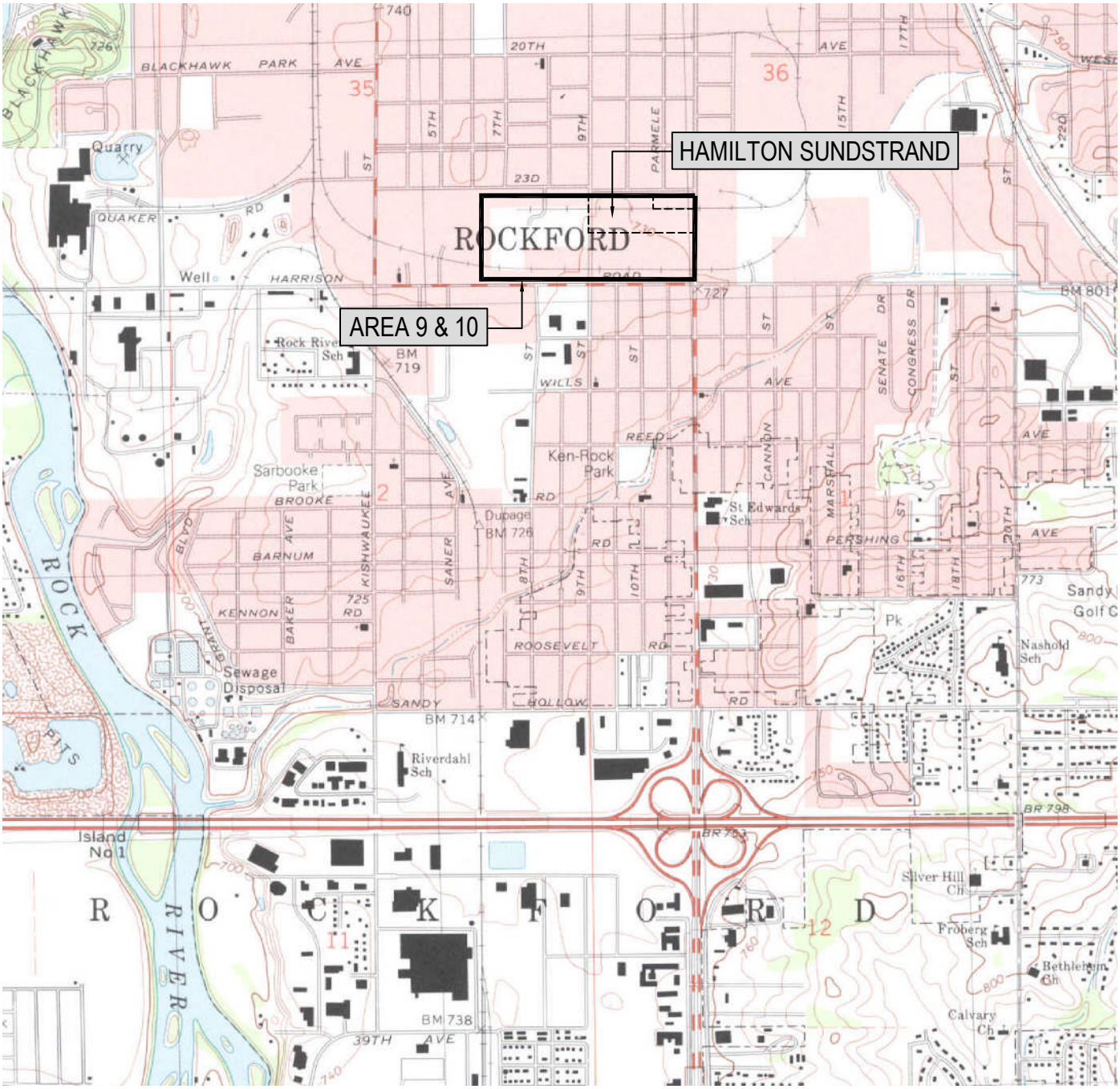
Analytical Data Qualifiers
B - (Metals) Results less than reporting limit but greater than or equal to Method Detection Limit
E - Result exceeds calibration range, secondary dilution required
U - Not Detected
J **-** Estimated value below the Reporting Limit
a - Concentration is below the Method Reporting Limit
* - Batch QC exceeded the upper or lower control limits
H - Result based on an alternative peak selection upon analytical review
M - Manually Integrated Compound
- Concentration above Background Level but below lowest RO

Note: Pre-2004 historical groundwater analytical data shows only detected compounds

^ - MW-201 original well was lost and replaced

See separate analytical notes page for table explanation.

FIGURES



REFERENCE: USGS 7.5 MINUTE QUADRANGLE; ROCKFORD SOUTH

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680 FAX: (630) 792-1691

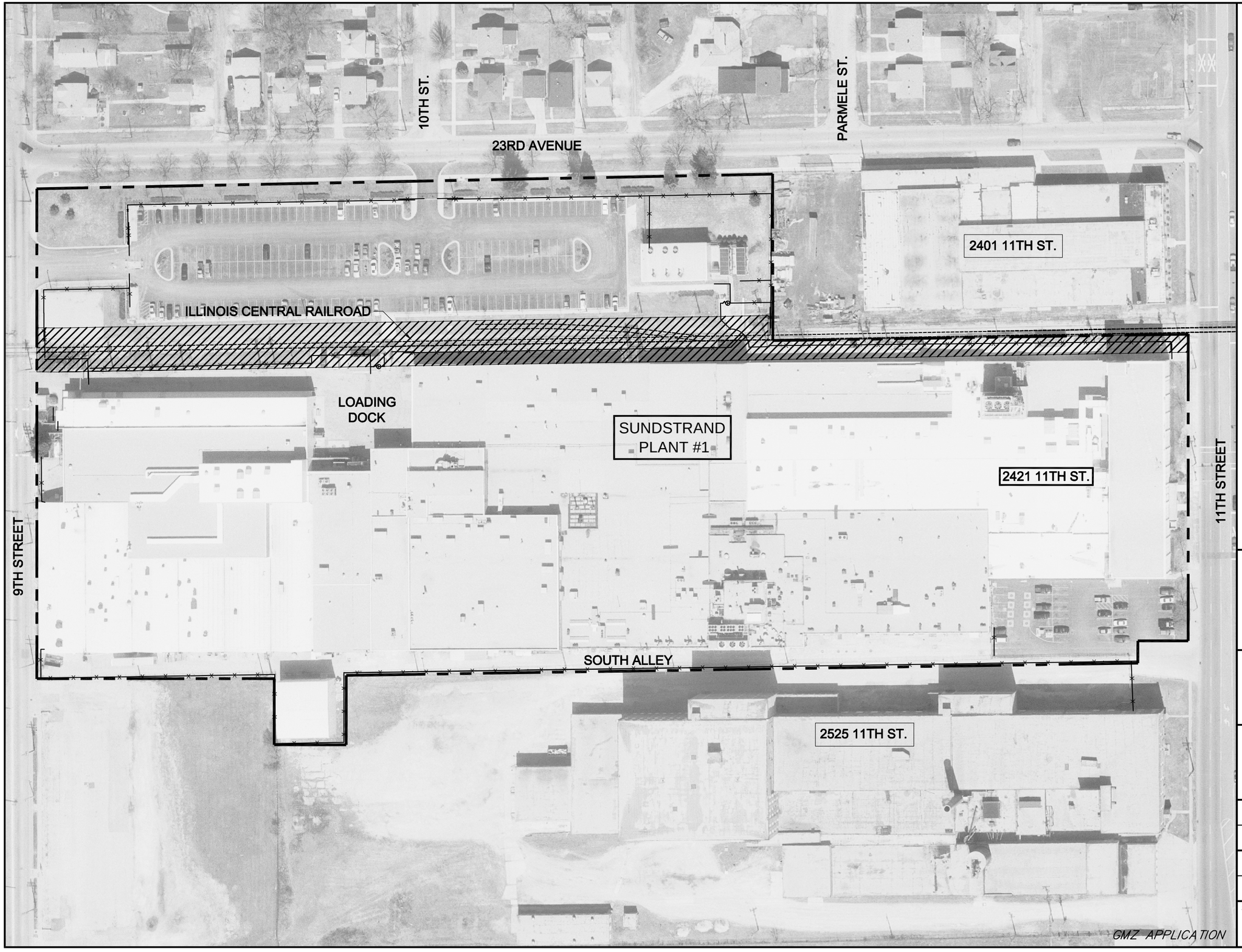
FOR:
AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

AREA 9/10 AND SITE LOCATION MAP

FIGURE
1.1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.07.0001	GH	KTW	DMC	11/29/06

FILEPATH:F:\Work\Autocad\Figures\UTC\061 figure 1 site location.dwg|jcastro|Dec 05, 2006 at 17:15|Layout: figure 1



N

LEGEND:

PROPERTY BOUNDARY

RAILROAD PROPERTY (LEASED)

NOTE:

HS LEASES LAND IDENTIFIED WITHIN THE PROPERTY BOUNDARY FROM ILLINOIS CENTRAL RAILROAD (OWNED BY CANADIAN NATIONAL RAILROAD) LEASE NO. 8565.

0 100 200

APPROXIMATE SCALE (FEET)

PREPARED BY:

SECOR

446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680/792-1691 (FAX)

FOR:

AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

TITLE:

HS PROPERTY OWNERSHIP MAP

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
DATE: 8/17/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

SHEET: 1.2

02072F05.dwg

10TH ST.

PARMELE ST

23RD AVENUE

SMW-1

SMW-2

SMW-3

MW202

MW203

2401 11TH ST.

S1 S2 S3 S4 S5 S6 S7 S8

ILLINOIS CENTRAL RAILROAD

SMW-14 SMW-13

MW-3FGA

SMW-19

S13 S14

SMW-8

SMW-15

S11

S9

LOADING DOCK

S10

S12

SUNDSTRAND PLANT #1

2421 11TH ST.

SMW-4

11TH STREET

9TH STREET

SMW-11R

RW-3R

MW-7FGA

SMW-12

RW-2

RW-1

SMW-20

SMW-21

SOUTH ALLEY

SMW-22

SMW-18

SMW-17

SMW-16A

SMW-5

MW201

S15

SMW-9

SMW-10

SMW-6

SMW-7

2525 11TH ST.

MW127

GMZ APPLICATION

N

LEGEND:

- PROPERTY BOUNDARY
- MONITORING WELL
- RECOVERY WELL
- SOIL BORING

NOTE:

1) WATER TABLE SCREENS 30-45 FT BGS
2) MIDLEVEL WELL SCREENS 80-100 FT BGS ***(SMW-9, SMW-11R, AND SMW-13)***
3) DEEP WELL SCREENS 120-140 FT BGS ***(SMW-10, SMW-12, AND SMW-14)***
4) SCREEN INTERVAL DEPTHS ARE APPROXIMATE

0 100 200

APPROXIMATE SCALE (FEET)

PREPARED BY:

SECOR

446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680/792-1691 (FAX)

FOR:

AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

TITLE:

SOIL BORING AND MONITORING WELL LOCATIONS

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
DATE: 8/17/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

FIGURE: 1.3

02072F05.dwg

10TH STREET

23RD AVENUE

PARMELE STREET

9TH STREET

11TH STREET

ILLINOIS CENTRAL RAILROAD

LOADING DOCK

SUNDSTRAND PLANT #1

SOUTH ALLEY

BLDG

2401 11TH ST.

2421 11TH ST.

2525 11TH ST.

RW-2

RW-1

RW-3R

SMW-1 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04
PCE	3.6	2.4
1,1,1-TCA	7.7	6.1

SMW-2 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04
1,2-DCE TOTAL	–	4.4
PCE	0.71J	1.3

SMW-3 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04
1,1-DCA	0.80J	–
PCE	0.98J	–

SMW-14 120'-140'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/26/04
1,1-DCA	2.3	2.7
1,1-DCE	1.3	1.6
1,2-DCE TOTAL	1.1	1.6
PCE	**7.5**	**5.8**
1,1,1-TCA	10	9.1
TCE	3.1	4.2

SMW-13 80'-100'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/26/04
CT	1.9	1.0
PCE	**24**	**15**
1,1,1-TCA	3.2	1.7
TCE	**20**	**14**
CF	**0.70J**	–

MW202 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/18/04	4/27/04	12/03	10/02	10/01	4/13/01	11/15/00	7/25/00	4/18/00	2/15/00	10/27/99	5/1/99	7/96
PCE	2.1	2.0	2.78	12	12	13	14	3.5	3.1	3.6	5.0	4.6	12
1,1,1-TCA	–	0.37J	–	–	0.063J	0.078J	0.11J	0.72J	0.85J	0.77J	2.2	2	5J
TCE	–	0.64J	1.11	–	–	0.11J	0.19J	0.75J	0.55J	0.5J	2.1	2.1	–
1,1-DCE	–	–	0.542J	–	–	–	–	–	–	–	0.18J	–	–
CIS-DCE	–	–	–	–	–	–	–	–	–	–	0.68J	0.81J	–
MC	–	–	–	0.5J	–	–	–	–	–	–	–	–	–
CF	–	–	–	–	–	–	–	**0.48J**	**0.25J**	–	–	–	–

SMW-8 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04
1,1-DCA	63	1.9
1,1-DCE	2.5	–
1,2-DCE TOTAL	**88**	38
MC	–	2.0
PCE	**260**	12
1,1,1-TCA	**320**	6.3
TCE	**32**	**6.8**
VC	1.0	–

SMW-4 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/27/04
1,1-DCA	3.5	6.7
1,2-DCE TOTAL	20	21
PCE	**77**	**71**
1,1,1-TCA	11	12
TCE	4.3	**6.0**
VC	7.4	–

SMW-15 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/26/04
1,1-DCA	18	15
1,1-DCE	1.4	1.3
1,2-DCE TOTAL	2.1	1.3
PCE	**58**	**53**
1,1,1-TCA	92	69
TCE	**5.3**	**7.4**
VC	0.81J	–

MW-3FGA 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/26/04
PCE	1.7	1.9
TCE	**3.9**	**6.7**

SMW-19 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04
1,2-DCE TOTAL	8.7
PCE	2.2
TCE	**57**

MW203 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/18/04	4/27/04	12/03	10/02	10/01	4/13/01	11/16/00	7/25/00	4/18/00	2/15/00	10/27/99	5/1/99	7/96
1,1-DCA	1.6	–	–	–	0.19J	–	–	–	–	–	0.28J	–	–
1,1-DCE	–	–	–	–	–	–	–	–	–	–	0.42J	–	–
CIS-DCE	–	–	–	–	–	–	–	0.074J	0.13J	1.5	0.67J	–	–
PCE	**8.9**	**7.6**	8.43	3.0	3.1	3.2	3.5	13	11	8.8	15	14	**7J**
1,1,1-TCA	–	–	–	–	0.76J	0.81J	0.66J	0.2J	0.14J	0.26J	2.7	0.92J	2J
TCE	–	–	–	0.7J	0.84J	0.76J	0.81J	0.21J	0.17J	0.24J	2.6	1.2	–
CF	–	–	–	**1.0**	**4.3**	**1.8**	0.82J	–	–	–	–	–	–

MW201 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/18/04*	4/27/04 **	12/03	10/02	10/01	4/13/01	11/15/00	7/25/00	4/18/00	2/16/00	7/1998 ***
1,1-DCA	**1,700**	**8,000**	6480	**7100**	150	43	340	330	120	48	690
1,1-DCE	–	–	–	**480J**	3.6J	1.6J	5.2J	6.8J	1.9J	1.1J	**850**
1,2-DCE TOTAL	30	51	–	–	–	–	–	–	–	–	–
TRANS-DCE	–	–	–	–	–	0.54J	–	–	0.78J	–	–
CIS-DCE	–	–	–	**2200**	120	60	180	220	87	85	**4,500**
PCE	–	–	–	–	–	–	–	–	–	–	**68J**
1,1,1-TCA	47	86	–	**970**	55	12	39	110	4.9J	4.5J	**12,000**
TCE	**23**	**26J**	–	–	**25**	**19**	4.9J	4.5J	**15**	**8.3**	–
VC	**8.1**	**44J**	–	–	–	–	–	–	–	–	**76J**
TOL	–	–	–	–	–	–	–	–	–	–	**94J**
XYL	–	–	–	–	–	–	–	–	–	–	**76J**

*DILUTION FACTOR OF 10 **DILUTION FACTOR OF 50

*** 1998 DATA IS FROM "ORIGINAL" MW201 WELL. SAMPLES AFTER 1998 COLLECTED FROM REPLACEMENT WELL.

SMW-20 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04
CA	590
1,1-DCA	**30,000**
1,1-DCE	**750**
1,2-DCE TOTAL	**28,000**
TOL	530
XYL	750
1,1,1-TCA	**6,900**
VC	**3,500**
PARAMETER	CONCENTRATION(PPM) 11/16/04
DRO/JP-4	2.6

*DILUTION FACTOR OF 200

SMW-21 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04*
1,1-DCA	**1,700**
1,1-DCE	**1,800**
1,2-DCE TOTAL	2,100
1,1,1-TCA	**34,000**
TCE	**200J**
PARAMETER	CONCENTRATION(PPM) 11/16/04
DRO/JP-4	1.3

*DILUTION FACTOR OF 200

SMW-22 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04
CA	4.0
1,1-DCA	340
1,1-DCE	**8.7**
1,2-DCA	**6.1**
1,2-DCE TOTAL	**250**
PCE	**290**
XYL	6.9
1,1,1-TCA	110
TCE	**120**
1,1,2-TCA	**11**
VC	**3.2**

*DILUTION FACTOR OF 5

SMW-18 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/27/04
AC	–	9.8
BEN	**220**	**310**
CA	190	180
1,1-DCA	25	15
1,1-DCE	**9.4**	3.8
1,2-DCE TOTAL	49	9.7
EB	290	250
MEK	25	–
MC	–	1.5
TOL	160	450
VC	–	**2.7**
XYL	750	880
PARAMETER	CONCENTRATION(PPM) 11/16/04	4/27/04
DRO/JP-4	3.6	7.2

SMW-17 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/27/04
BEN	**8.4**	11
1,1-DCA	3.6	5.3
TCE	–	1.1
XYL	–	0.88J

SMW-11R 80'-100'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04
AC	–	2.1J
1,1-DCA	1.3	2.1
1,2-DCE TOTAL	1.2	2.1
PCE	1.8	1.3
1,1,1-TCA	5.1	1.4
TCE	1.1	1.8

SMW-12 120'-140'

COMPOUND	CONCENTRATION(PPB) 11/16/04	11/16/04 DUP	4/26/04	4/26/04 DUP
1,1-DCA	4.3	4.5	3.5	4.0
1,1-DCE	1.0	1.1	0.95	1.0
1,2-DCE TOTAL	3.8	4.2	2.8	3.2
PCE	**8.3**	**9.2**	4.6	4.4
1,1,1-TCA	10	11	8.0	8.7
TCE	3.4	4.0	2.9	3.0

SMW-5 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04	4/26/04 DUP
CA	3.0	0.98J	1.0
1,1-DCA	7.6	11	11
1,1-DCE	2.7	2.2	2.3
1,2-DCE TOTAL	**26**	**38**	**38**
PCE	**14**	**34**	**32**
1,1,1-TCA	13	15	16
TCE	**16**	**30**	**33**
VC	**14**	**31**	**32**

SMW-9 80'-100'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/27/04
AC	–	4.1J
1,1-DCA	6.7	69
1,1-DCE	3.5	3.8
1,2 DCE TOTAL	2.9	55
MC	–	1.1
PCE	**7.6**	3.3
1,1,1-TCA	24	52
TCE	3.7	2.4

SMW-10 120'-140'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/27/04
1,1-DCA	4.8	5.9
1,1-DCE	2.2	2.5
1,2-DCE TOTAL	1.3	1.6
PCE	4.7	**5.9**
1,1,1-TCA	16	19
TCE	2.6	3.4

SMW-8 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/17/04*	4/27/04 *
1,1-DCA	**22,000**	**16,000**
1,1-DCE	**550**	**470**
1,2-DCE TOTAL	**23,000**	**16,000**
PCE	–	–
TOL	290	310
1,1,1-TCA	**640**	**1,100**
TCE	–	–
VC	**2,100**	**1,800**
XYL	390	250
CA	300	–
PARAMETER	CONCENTRATION(PPM) 11/16/04*	4/27/04 *
DRO/JP-4	1.6	0.88

* DILUTION FACTOR OF 100

SMW-7 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04*	4/28/04 *
1,1-DCA	220	340
1,1-DCE	**230**	310
1,2 DCE TOTAL	**1,400**	**1,700**
EB	150	170
PCE	**88**	**69J**
1,1,1-TCA	**9,900**	**10,000**
TCE	**32**	**53J**
VC	**14J**	**46J**
XYL	920	1,000
PARAMETER	CONCENTRATION(PPM) 11/16/04*	4/28/04 *
DRO/JP-4	1.7	1.1

* DILUTION FACTOR OF 100

MW127 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/27/04 *	10/11/93
BEN	**30**	**98**	**92**
CA	900	1,500	59
1,1-DCA	9.2	55	15
1,2-DCA	**7.7**	–	–
PCE	–	**9.4**	–
XYL	2.1	–	–

* DILUTION FACTOR OF 5

SMW-16A 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	11/16/04 DUP	4/27/04
PCE	4.2	4.1	4.5
1,1,1-TCA	12	13	14

MW-7FGA 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04
PCE	3.3	–
1,1,1-TCA	1.8	–
TCE	2.5	–
PARAMETER	CONCENTRATION(PPM) 11/16/04	4/26/04
DRO/JP-4	–	0.17

N

0 50 100

APPROXIMATE SCALE (FEET)

LEGEND

- MONITORING WELL
- RECOVERY WELL
- —x— FENCELINE

MAXIMUM CONTAMINANT LEVELS (MCL'S)
ILLINOIS CLASS I GROUNDWATER REMEDIATION OBJECTIVES

ACETONE (AC)	700
BENZENE (BEN)	5
CHLOROETHANE (CA)	2,800*
CHLOROFORM (CF)	0.2
CARBON TETRACHLORIDE (CT)	5
1,1-DICHLOROETHANE (1,1-DCA)	700
1,1-DICHLOROETHENE (1,1-DCE)	7
1,2-DICHLOROETHANE (1,2-DCA)	5
TOTAL 1,2-DICHLOROETHENE (1,2-DCE TOTAL)	70
CIS-1,2-DICHLOROETHENE (CIS-DCE)	70
TRANS-1,2-DICHLOROETHENE (TRANS-DCE)	100
ETHYLBENZENE (EB)	700
METHYLENE CHLORIDE (MC)	5
TETRACHLOROETHENE (PCE)	5
1,1,1-TRICHLOROETHANE (1,1,1-TCA)	200
1,1,2-TRICHLOROETHANE (1,1,2-TCA)	5
TRICHLOROETHENE (TCE)	5
TOLUENE (TOL)	1,000
VINYL CHLORIDE (VC)	2
XYLENES (XYL)	10,000

* Per 7-22-04 IEPA letter

NOTES:

1) BOLD DATA IN TABLES ON THE DRAWING REPRESENT CONCENTRATIONS EXCEEDING A MCL.

2) NOTE THAT UNQUANTIFIED CONCENTRATIONS DUE TO ELEVATED DETECTION LIMITS ARE NOT HIGHLIGHTED IN BOLD PRINT.

3) FOR "J" VALUE: RESULT IS LESS THAN REPORTING LIMIT, BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT

4) APPROXIMATE SCREENED INTERVAL IS INCLUDED WITH MONITORING WELL IDENTIFICATION.

5) ITALICIZED WELL NAMES ARE MID LEVEL OR DEEP AQUIFER WELLS.

6) ONLY DETECTED COMPOUNDS SHOWN.

7) DRO/JP-4 - DIESEL RANGE ORGANICS ANALYSIS FOR JET PROPELLANT-4 (JP-4)

GMZ APPLICATION

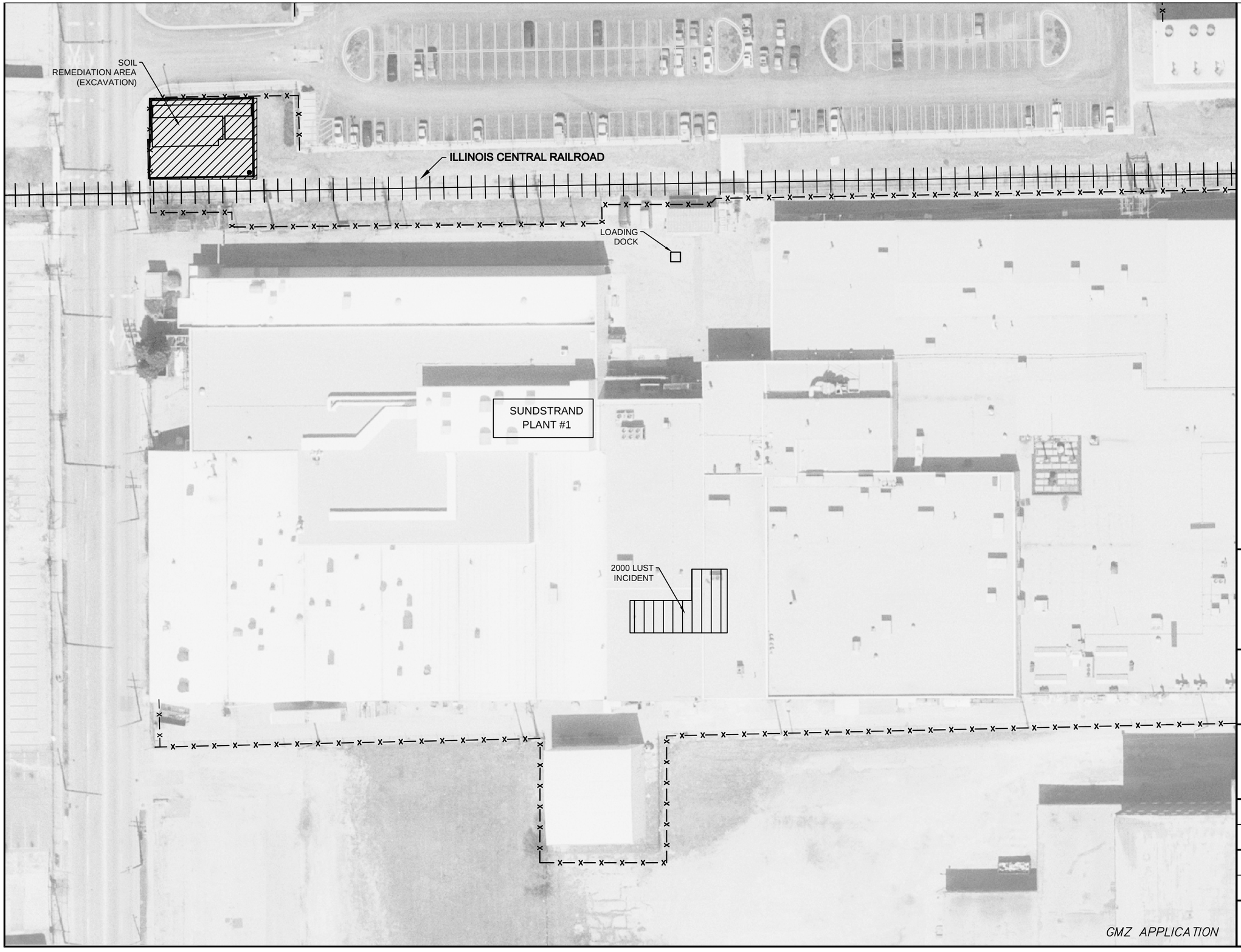
SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE:(630) 792-1680 FAX:(630) 792-1691

FOR:
AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

FIGURE 1.4

JOB NUMBER: 13UN.02072.07.0001 | DRAWN BY: GH/KEF | CHECKED BY: KTW | APPROVED BY: -- | DATE: 11/28/06



N

LEGEND

- FENCE LINE
- SOIL REMEDIATION AREA
- 2000 LUST INCIDENT
- LOADING DOCK AREA

0 60 120

APPROXIMATE SCALE (FEET)

PREPARED BY:

SECOR

446 EISENHOWER LANE NORTH
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PHONE: (630) 792-1680/792-1691 (FAX)

FOR:

AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER
CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

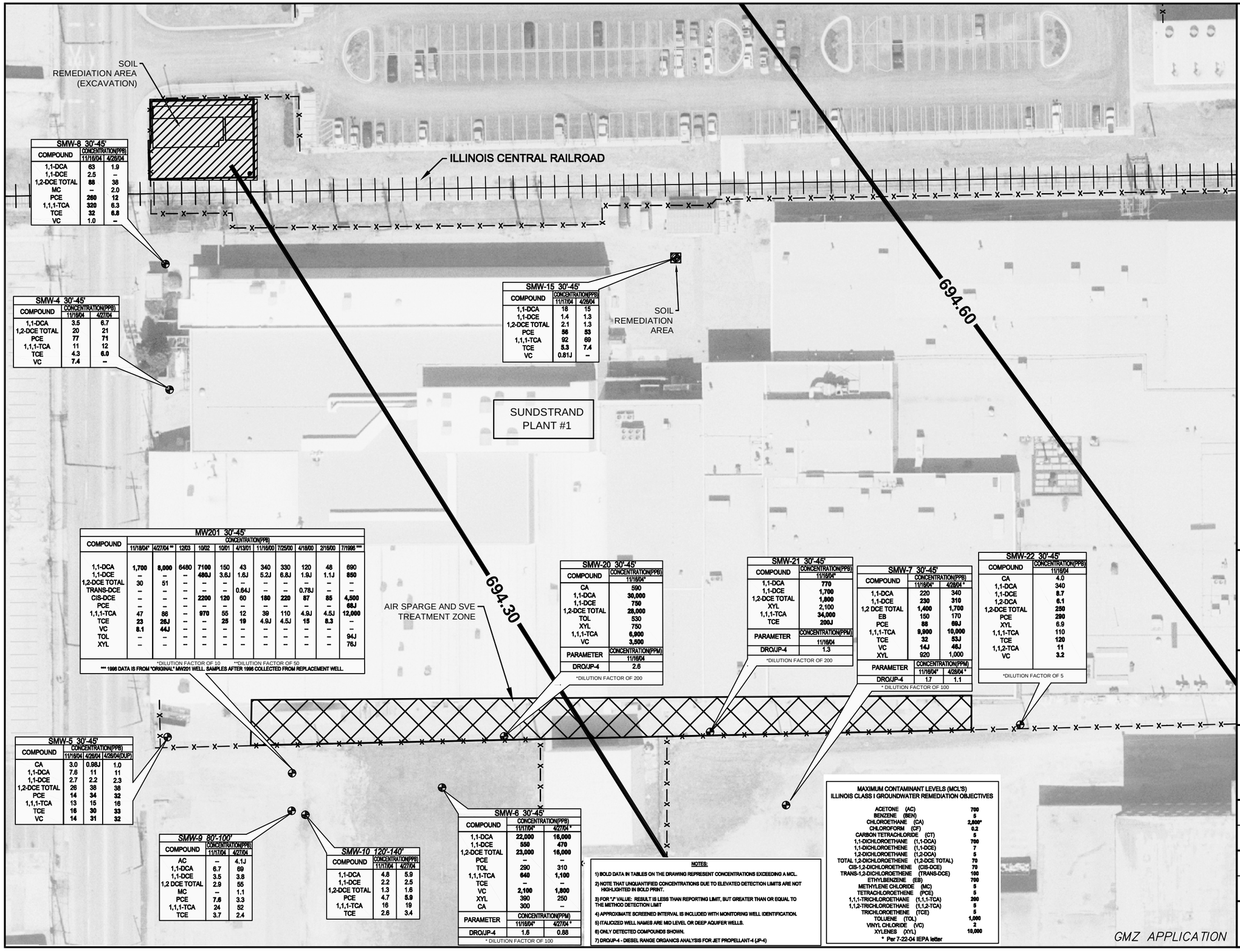
TITLE:

POTENTIAL SOIL SOURCE MATERIAL AREAS IDENTIFIED WITH THE POTENTIAL TO IMPACT GROUNDWATER

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
DATE: 11/22/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

FIGURE: 1.5

02072F06.dwg



SMW-8 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/28/04
1,1-DCA	63	1.9
1,1-DCE	2.5	–
1,2-DCE TOTAL	88	38
MC	–	2.0
PCE	260	12
1,1,1-TCA	320	6.3
TCE	32	6.8
VC	1.0	–

SMW-4 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/27/04
1,1-DCA	3.5	6.7
1,2-DCE TOTAL	20	21
PCE	77	71
1,1,1-TCA	11	12
TCE	4.3	6.0
VC	7.4	–

SMW-15 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/28/04
1,1-DCA	18	15
1,1-DCE	1.4	1.3
1,2-DCE TOTAL	2.1	1.3
PCE	56	83
1,1,1-TCA	92	69
TCE	5.3	7.4
VC	0.81J	–

MW201 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/18/04*	4/27/04 **	12/03	10/02	10/01	4/13/01	11/16/00	7/25/00	4/18/00	2/16/00	7/1996 ***
1,1-DCA	1,700	8,000	6480	7100	150	43	340	330	120	48	690
1,1-DCE	–	–	–	480J	3.6J	1.6J	5.2J	6.8J	1.9J	1.1J	850
1,2-DCE TOTAL	30	51	–	–	–	–	–	–	–	–	–
TRANS-DCE	–	–	–	–	–	0.64J	–	–	0.78J	–	–
CIS-DCE	–	–	–	2200	120	60	180	220	87	85	4,500
PCE	–	–	–	–	–	–	–	–	–	–	68J
1,1,1-TCA	47	86	–	970	55	12	39	110	4.9J	4.5J	12,000
TCE	23	26J	–	–	25	19	4.9J	4.5J	15	8.3	–
VC	8.1	44J	–	–	–	–	–	–	–	–	–
TOL	–	–	–	–	–	–	–	–	–	–	94J
XYL	–	–	–	–	–	–	–	–	–	–	76J

*DILUTION FACTOR OF 10 **DILUTION FACTOR OF 50

*** 1996 DATA IS FROM "ORIGINAL" MW201 WELL. SAMPLES AFTER 1996 COLLECTED FROM REPLACEMENT WELL.

SMW-20 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04*
CA	590
1,1-DCA	30,000
1,1-DCE	750
1,2-DCE TOTAL	28,000
TOL	530
XYL	750
1,1,1-TCA	6,900
VC	3,500
PARAMETER	CONCENTRATION(PPM) 11/16/04
DRO/JP-4	2.6

*DILUTION FACTOR OF 200

SMW-21 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04*
1,1-DCA	770
1,1-DCE	1,700
1,2-DCE TOTAL	1,800
XYL	2,100
1,1,1-TCA	34,000
TCE	200J
PARAMETER	CONCENTRATION(PPM) 11/16/04
DRO/JP-4	1.3

*DILUTION FACTOR OF 200

SMW-7 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04*	4/28/04 *
1,1-DCA	220	340
1,1-DCE	230	310
1,2 DCE TOTAL	1,400	1,700
EB	150	170
PCE	88	89J
1,1,1-TCA	9,900	10,000
TCE	32	53J
VC	14J	46J
XYL	920	1,000
PARAMETER	CONCENTRATION(PPM) 11/16/04*	4/28/04 *
DRO/JP-4	1.7	1.1

* DILUTHION FACTOR OF 100

SMW-22 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04
CA	4.0
1,1-DCA	340
1,1-DCE	8.7
1,2-DCA	6.1
1,2-DCE TOTAL	250
PCE	290
XYL	6.9
1,1,1-TCA	110
TCE	120
1,1,2-TCA	11
VC	3.2

*DILUTION FACTOR OF 5

SMW-5 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/16/04	4/26/04	4/26/04(DUP)
CA	3.0	0.98J	1.0
1,1-DCA	7.6	11	11
1,1-DCE	2.7	2.2	2.3
1,2-DCE TOTAL	26	38	38
PCE	14	34	32
1,1,1-TCA	13	15	16
TCE	16	30	33
VC	14	31	32

SMW-9 80'-100'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/27/04
AC	–	4.1J
1,1-DCA	6.7	69
1,1-DCE	3.5	3.8
1,2 DCE TOTAL	2.9	55
MC	–	1.1
PCE	7.6	3.3
1,1,1-TCA	24	52
TCE	3.7	2.4

SMW-10 120'-140'

COMPOUND	CONCENTRATION(PPB) 11/17/04	4/27/04
1,1-DCA	4.8	5.9
1,1-DCE	2.2	2.5
1,2-DCE TOTAL	1.3	1.6
PCE	4.7	5.9
1,1,1-TCA	16	19
TCE	2.6	3.4

SMW-6 30'-45'

COMPOUND	CONCENTRATION(PPB) 11/17/04*	4/27/04 *
1,1-DCA	22,000	16,000
1,1-DCE	550	470
1,2-DCE TOTAL	23,000	16,000
PCE	–	–
TOL	290	310
1,1,1-TCA	640	1,100
TCE	–	–
VC	2,100	1,800
XYL	390	250
CA	300	–
PARAMETER	CONCENTRATION(PPM) 11/16/04*	4/27/04 *
DRO/JP-4	1.6	0.88

* DILUTION FACTOR OF 100

NOTES:

1) BOLD DATA IN TABLES ON THE DRAWING REPRESENT CONCENTRATIONS EXCEEDING A MCL.

2) NOTE THAT UNQUANTIFIED CONCENTRATIONS DUE TO ELEVATED DETECTION LIMITS ARE NOT HIGHLIGHTED IN BOLD PRINT.

3) FOR "J" VALUE: RESULT IS LESS THAN REPORTING LIMIT, BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT

4) APPROXIMATE SCREENED INTERVAL IS INCLUDED WITH MONITORING WELL IDENTIFICATION.

5) ITALICIZED WELL NAMES ARE MID LEVEL OR DEEP AQUIFER WELLS.

6) ONLY DETECTED COMPOUNDS SHOWN.

7) DRO/JP-4 - DIESEL RANGE ORGANICS ANALYSIS FOR JET PROPELLANT-4 (JP-4)

MAXIMUM CONTAMINANT LEVELS (MCL'S)
ILLINOIS CLASS I GROUNDWATER REMEDIATION OBJECTIVES

ACETONE (AC)	700
BENZENE (BEN)	5
CHLOROETHANE (CA)	2,800*
CHLOROFORM (CF)	0.2
CARBON TETRACHLORIDE (CT)	5
1,1-DICHLOROETHANE (1,1-DCA)	700
1,1-DICHLOROETHENE (1,1-DCE)	7
1,2-DICHLOROETHANE (1,2-DCA)	5
TOTAL 1,2-DICHLOROETHENE (1,2-DCE TOTAL)	70
CIS-1,2-DICHLOROETHENE (CIS-DCE)	70
TRANS-1,2-DICHLOROETHENE (TRANS-DCE)	100
ETHYLBENZENE (EB)	700
METHYLENE CHLORIDE (MC)	5
TETRACHLOROETHENE (PCE)	5
1,1,1-TRICHLOROETHANE (1,1,1-TCA)	200
1,1,2-TRICHLOROETHANE (1,1,2-TCA)	5
TRICHLOROETHENE (TCE)	5
TOLUENE (TOL)	1,000
VINYL CHLORIDE (VC)	2
XYLENES (XYL)	10,000

* Per 7-22-04 IEPA letter

LEGEND

- MONITORING WELL
- RECOVERY WELL
- FENCE LINE
- GROUNDWATER POTENTIOMETRIC CONTOUR LINE
- SOIL REMEDIATION AREA
- AIR SPARGE AND SVE GROUNDWATER REMEDIATION TREATMENT ZONE

NOTE:
GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS FROM MARCH 23, 2006 IN FEET ABOVE MEAN SEA LEVEL.

0 60 120

APPROXIMATE SCALE (FEET)

PREPARED BY:
SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680/792-1691 (FAX)

FOR:
AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

TITLE:
GROUNDWATER AND SOIL REMEDIATION AREAS

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
DATE: 11/22/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

SHEET: 1.6

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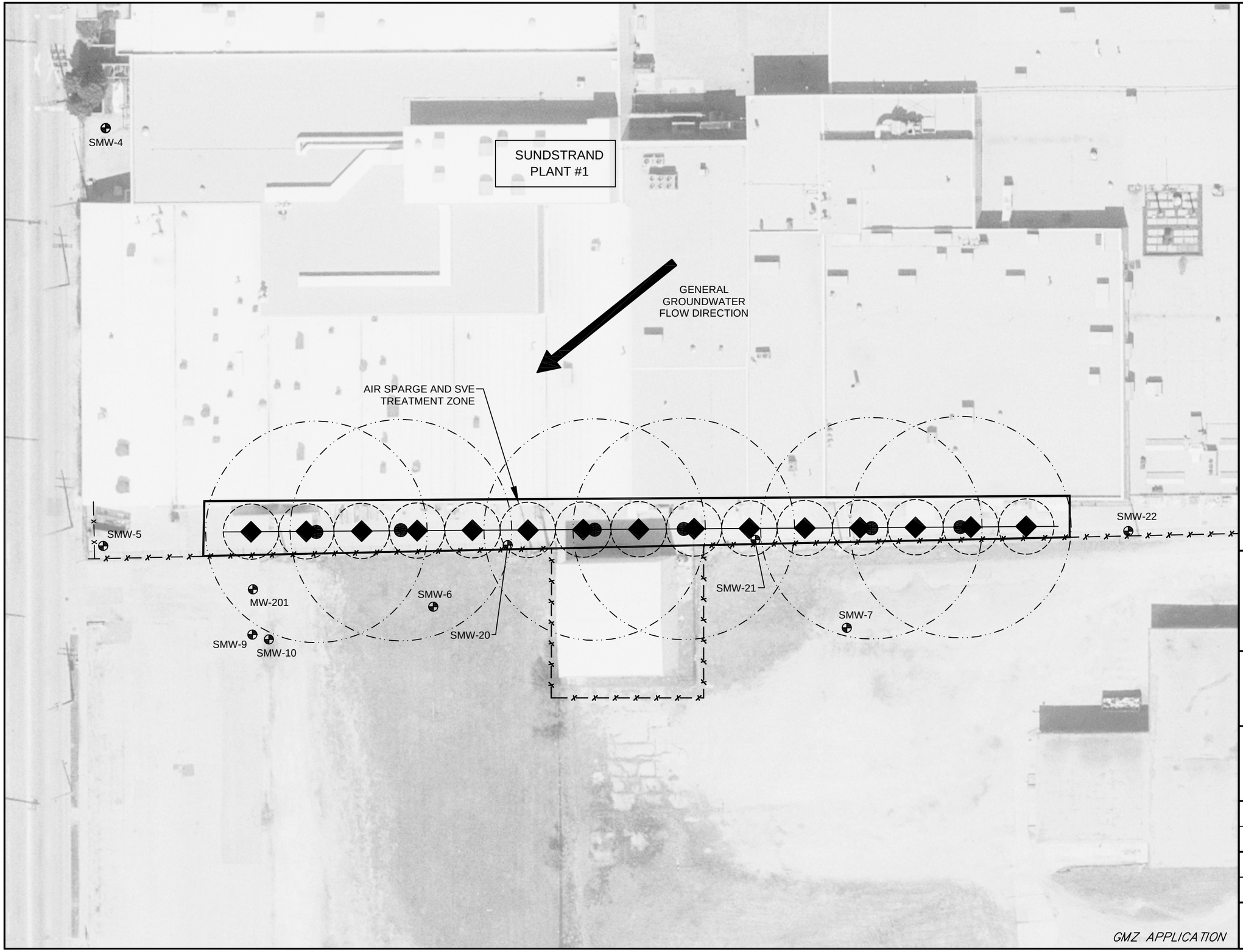

N

LEGEND

- MONITORING WELL
- FENCE LINE
- SVE WELL
- AIR SPARGE WELL
- SVE RADIUS OF INFLUENCE
- AIR SPARGE RADIUS OF INFLUENCE
- AIR SPARGE AND SVE GROUNDWATER REMEDIATION TREATMENT ZONE

0 50 100

APPROXIMATE SCALE (FEET)

PREPARED BY:

SECOR

446 EISENHOWER LANE NORTH
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PHONE: (630) 792-1680/792-1691 (FAX)

FOR:

AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER
CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

TITLE:

AIR SPARGE AND SOIL VAPOR EXTRACTION TREATMENT ZONE DETAILS

DRAWN BY: JC	DESIGNED BY: JGF
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
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SHEET: 1.7

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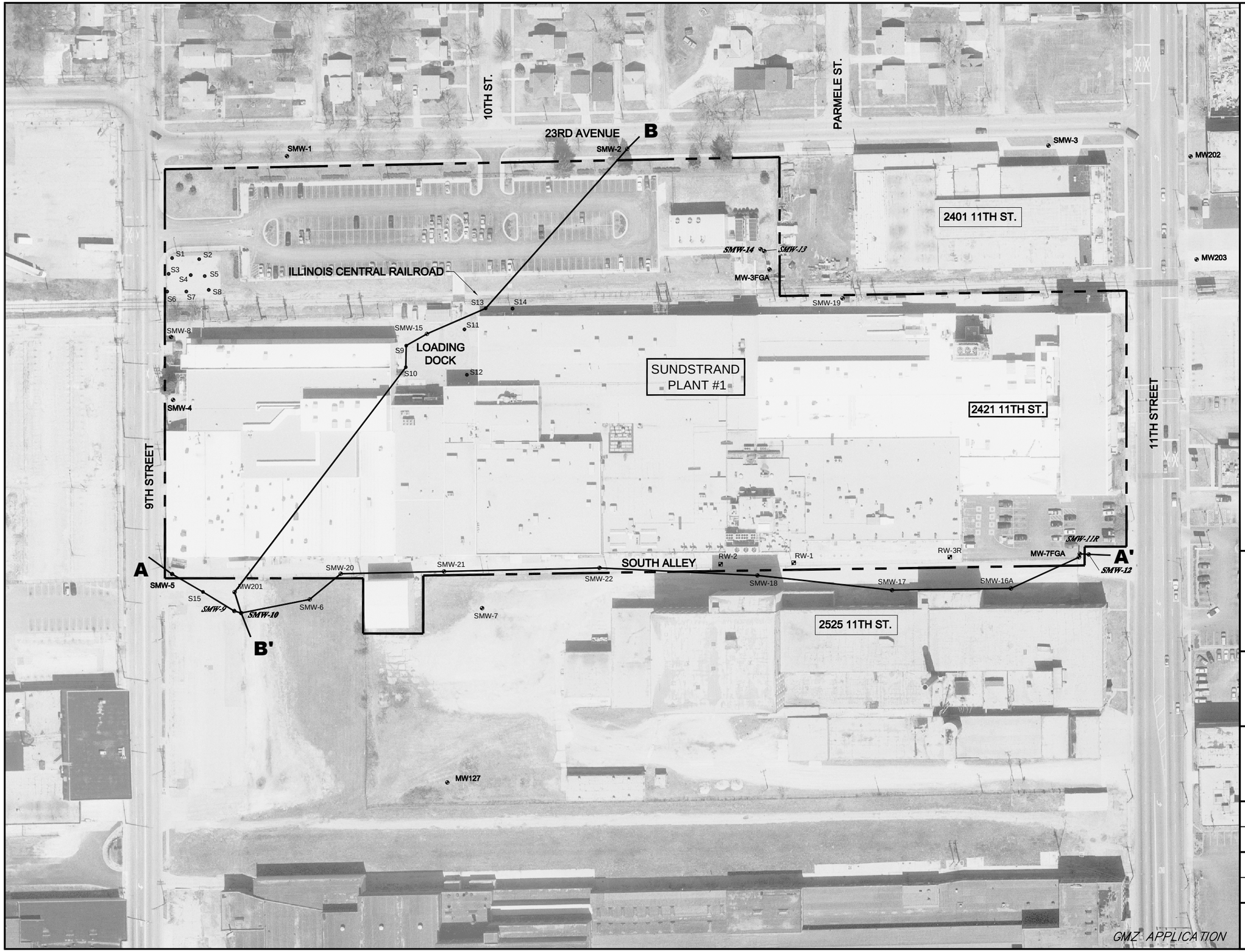


N

LEGEND:

- PROPERTY BOUNDARY
- MONITORING WELL
- RECOVERY WELL
- SOIL BORING
- CROSS SECTION A-A'

0 120 240

APPROXIMATE SCALE (FEET)

PREPARED BY:

SECOR
446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680/792-1691 (FAX)

FOR:

AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

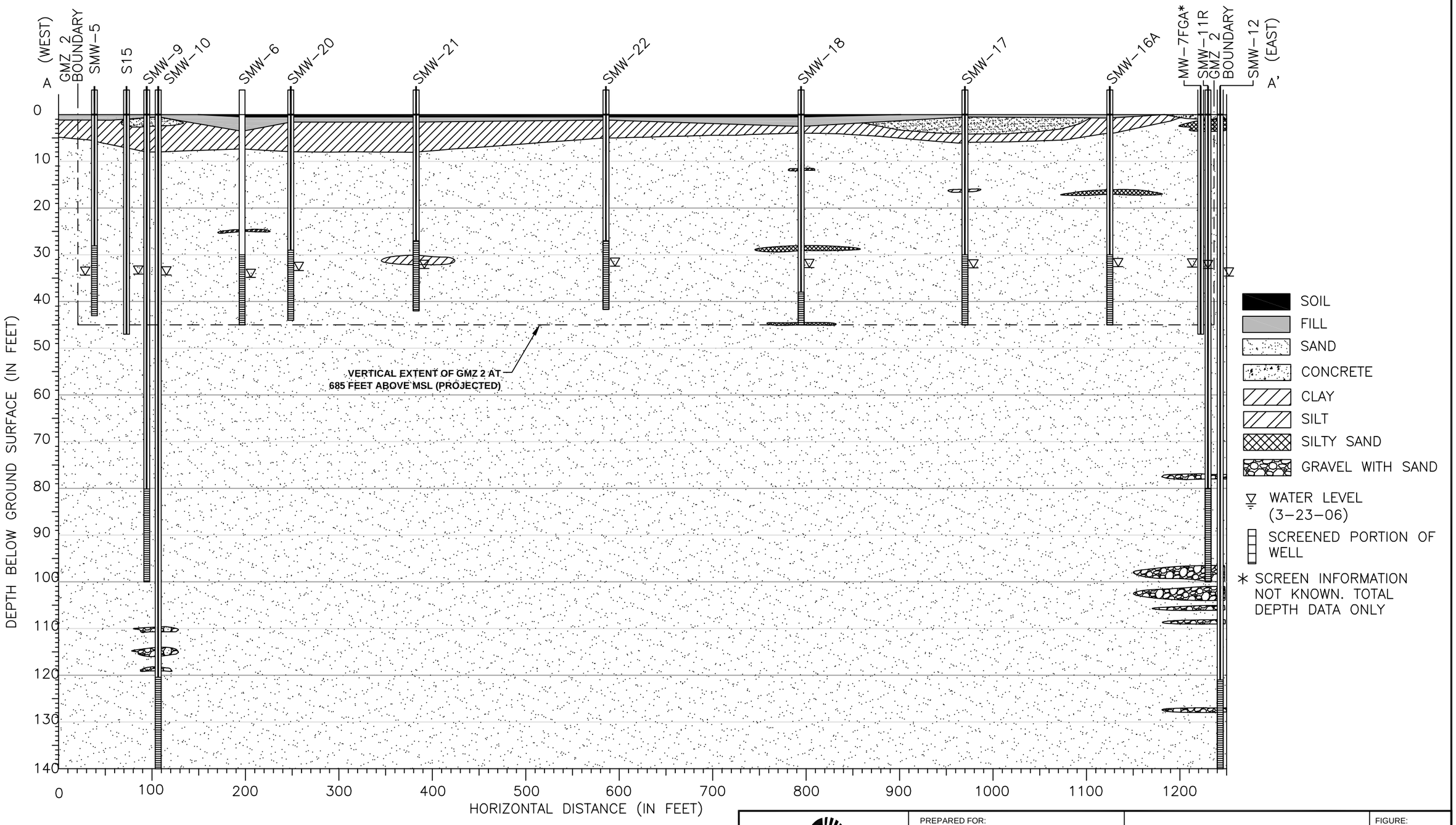
TITLE:

AREA 9/10
CROSS SECTION ALIGNMENTS

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
DATE: 11/22/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

FIGURE: 2.1

02072F05.dwg



NOTE:
GROUND SURFACE ELEVATION APPROXIMATELY 729 FT ABOVE MEAN SEA LEVEL (VARIES +/- 1.5 FEET ACROSS AREA)

GMZ APPLICATION

SECOR
446 EISENHOWER LANE NORTH
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PH:(630)792-1680 / FAX:(630)792-1691

PREPARED FOR:
AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLNOIS

WEST - EAST CROSS SECTION A-A'

FIGURE: 2.2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.04.0001	JC	KTW	DMC	11/28/06

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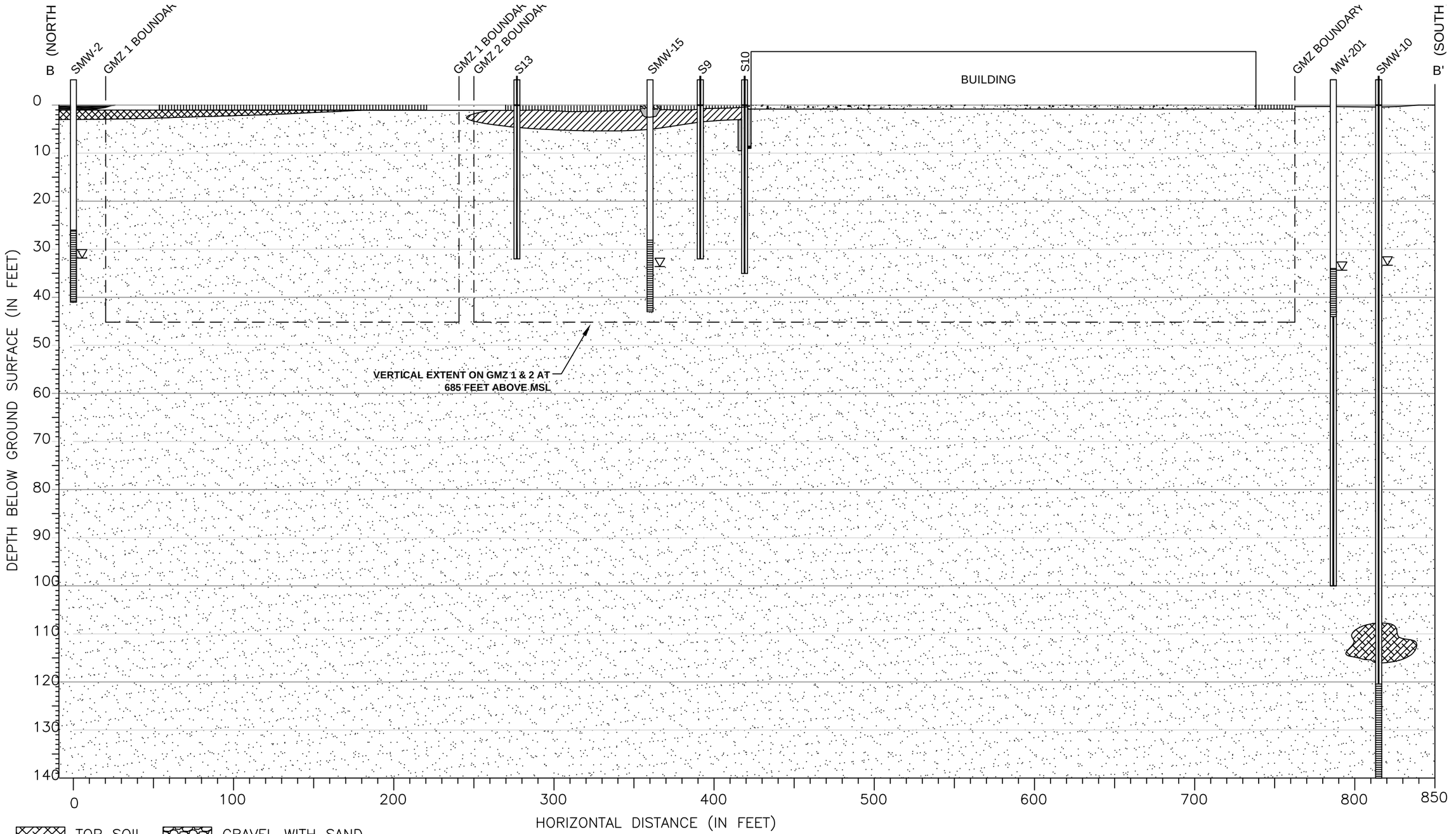
02072F11



TOP SOIL
FILL
SAND
CLAY
CONCRETE
SILTY SAND
GRAVEL WITH SAND
GRAVEL W/ SILTY CLAY
ASPHALT
WATER LEVEL (3/23/06)
SCREENED PORTION OF WELL

NOTE:
GROUND SURFACE ELEVATION APPROXIMATELY 729 FT ABOVE MEAN SEA LEVEL
(VARIES +/– 1.5 FEET ACROSS AREA)

GMZ APPLICATION

SECOR
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PREPARED FOR:
AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

NORTH - SOUTH CROSS SECTION B-B'

FIGURE: 2.3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
13UN.02072.04	JC	KTW	DMC	8/23/06

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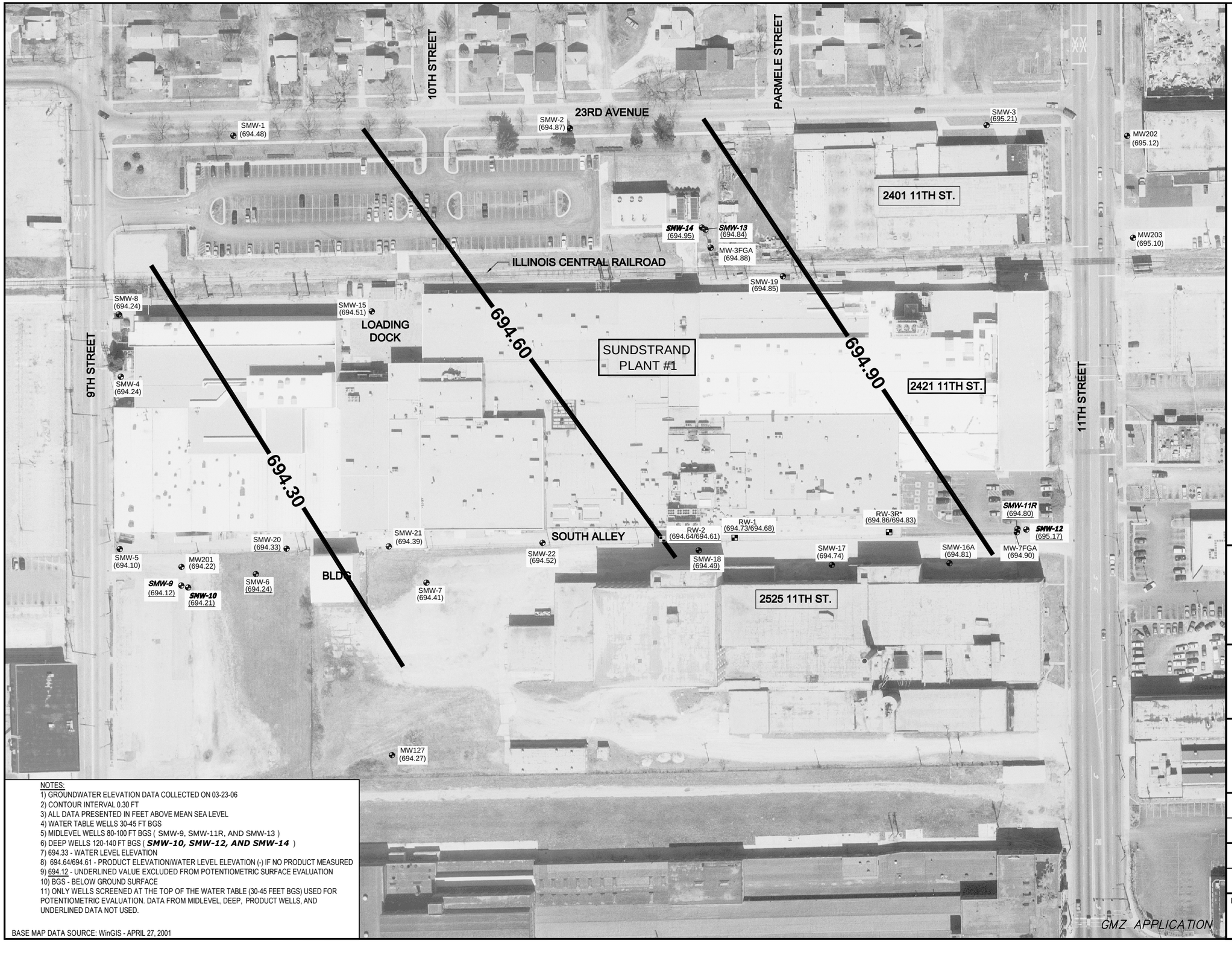


NOTES:
1) GROUNDWATER ELEVATION DATA COLLECTED ON 03-23-06
2) CONTOUR INTERVAL 0.30 FT
3) ALL DATA PRESENTED IN FEET ABOVE MEAN SEA LEVEL
4) WATER TABLE WELLS 30-45 FT BGS
5) MIDLEVEL WELLS 80-100 FT BGS (SMW-9, SMW-11R, AND SMW-13)
6) DEEP WELLS 120-140 FT BGS (***SMW-10, SMW-12, AND SMW-14***)
7) 694.33 - WATER LEVEL ELEVATION
8) 694.64/694.61 - PRODUCT ELEVATION/WATER LEVEL ELEVATION (-) IF NO PRODUCT MEASURED
9) 694.12 - UNDERLINED VALUE EXCLUDED FROM POTENTIOMETRIC SURFACE EVALUATION
10) BGS - BELOW GROUND SURFACE
11) ONLY WELLS SCREENED AT THE TOP OF THE WATER TABLE (30-45 FEET BGS) USED FOR POTENTIOMETRIC EVALUATION. DATA FROM MIDLEVEL, DEEP, PRODUCT WELLS, AND UNDERLINED DATA NOT USED.

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

N

LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPERTY BOUNDARY
- 694.90 CONTOUR LINE
- * BASED ON RW-3 SURVEY DATA

0 120 240

APPROXIMATE SCALE (FEET)

PREPARED BY:

SECOR

446 EISENHOWER LANE NORTH
LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680/792-1691 (FAX)

FOR:

HAMILTON SUNDSTRAND
ROCKFORD, ILLINOIS

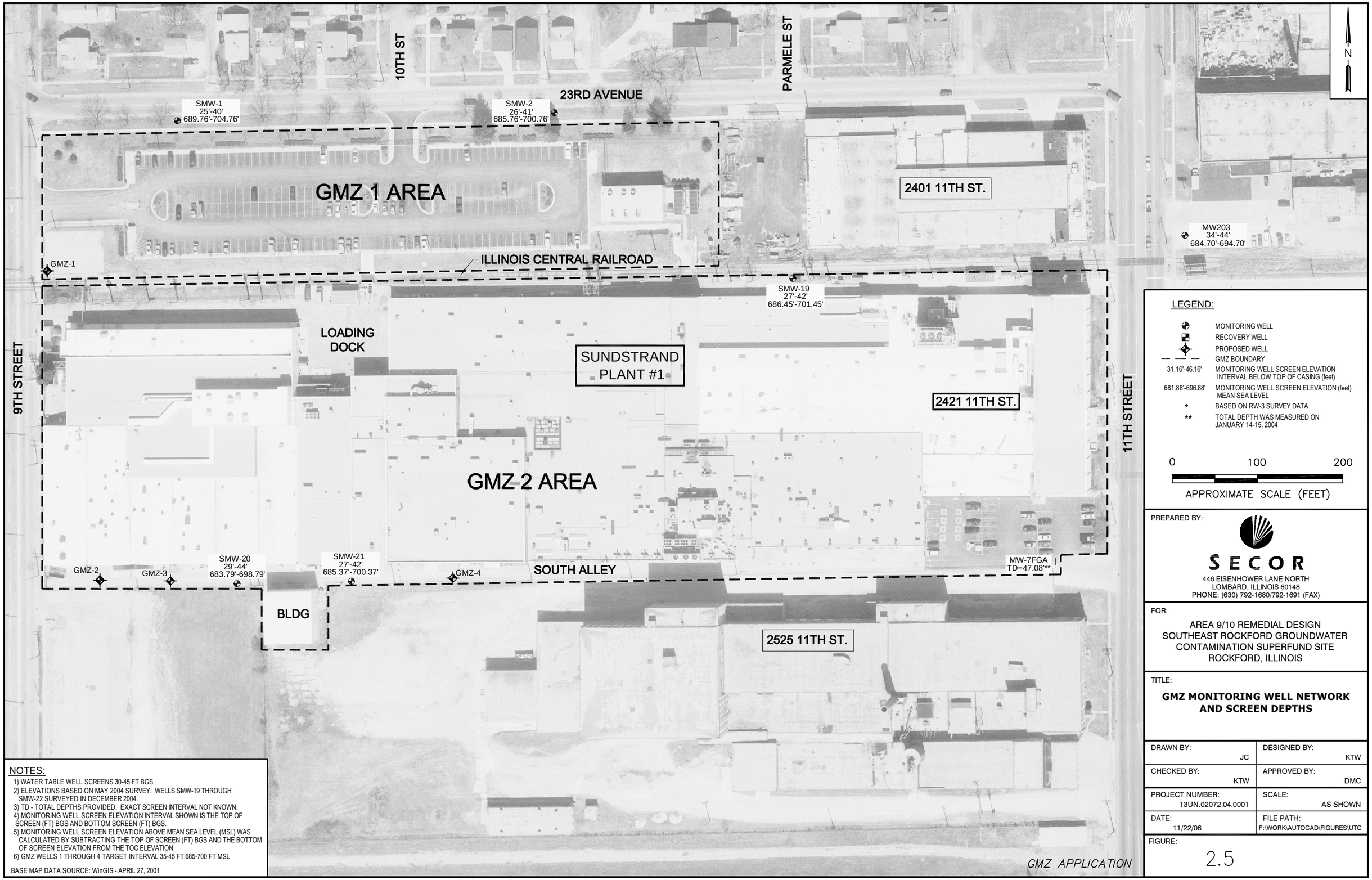
TITLE:

GROUNDWATER POTENTIOMETRIC SURFACE MAP
MARCH 23, 2006

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04	SCALE: AS SHOWN
DATE: 8/25/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

FIGURE: 2.4

02072F9.dwg



LEGEND:

- MONITORING WELL
- RECOVERY WELL
- PROPOSED WELL
- GMZ BOUNDARY
- 31.16'-46.16' — MONITORING WELL SCREEN ELEVATION INTERVAL BELOW TOP OF CASING (feet)
- 681.88'-696.88' — MONITORING WELL SCREEN ELEVATION (feet) MEAN SEA LEVEL
- * — BASED ON RW-3 SURVEY DATA
- ** — TOTAL DEPTH WAS MEASURED ON JANUARY 14-15, 2004

0 100 200

APPROXIMATE SCALE (FEET)

NOTES:

1) WATER TABLE WELL SCREENS 30-45 FT BGS
2) ELEVATIONS BASED ON MAY 2004 SURVEY. WELLS SMW-19 THROUGH SMW-22 SURVEYED IN DECEMBER 2004.
3) TD - TOTAL DEPTHS PROVIDED. EXACT SCREEN INTERVAL NOT KNOWN.
4) MONITORING WELL SCREEN ELEVATION INTERVAL SHOWN IS THE TOP OF SCREEN (FT) BGS AND BOTTOM SCREEN (FT) BGS.
5) MONITORING WELL SCREEN ELEVATION ABOVE MEAN SEA LEVEL (MSL) WAS CALCULATED BY SUBTRACTING THE TOP OF SCREEN (FT) BGS AND THE BOTTOM OF SCREEN ELEVATION FROM THE TOC ELEVATION.
6) GMZ WELLS 1 THROUGH 4 TARGET INTERVAL 35-45 FT 685-700 FT MSL

BASE MAP DATA SOURCE: WinGIS - APRIL 27, 2001

PREPARED BY:
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LOMBARD, ILLINOIS 60148
PHONE: (630) 792-1680/792-1691 (FAX)

FOR:
AREA 9/10 REMEDIAL DESIGN
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE
ROCKFORD, ILLINOIS

TITLE:
GMZ MONITORING WELL NETWORK AND SCREEN DEPTHS

DRAWN BY: JC	DESIGNED BY: KTW
CHECKED BY: KTW	APPROVED BY: DMC
PROJECT NUMBER: 13UN.02072.04.0001	SCALE: AS SHOWN
DATE: 11/22/06	FILE PATH: F:\WORK\AUTOCAD\FIGURES\UTC

FIGURE: 2.5

02072F10.dwg